

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

RETURN TO POMOLOGY

1915/16 INDEXED

MAR 2 1916

NEW ENGLAND NOMENCLATURE

TRUE
TO
NAME



TRUE
TO
NAME

"Behind each tree is our guarantee"

To Fruit Growers:

The prices quoted in this Catalogue will save you money; while in the recommendations we make for your planting and in the descriptions of varieties, we give you the best of our experience and observation as fruit growers, fruit shippers and nurserymen. We aim also to give some useful information

For hardiness and good roots, our foot-hill grown trees are the best, and whether you are planting for commercial purposes or for home orchard, we advise that you get your order in at once.

Prunes, Apricots, Olives, Pears, Cherries, Walnuts, Almonds, etc., are selling fast, and those who wait usually do not get the best selection of varieties and are often disappointed.

You can save 5 per cent of the cost of your trees by remitting full amount of cash with order; otherwise terms are one-tenth with order, balance on delivery of trees.

Find enclosed an order blank for your convenience. Fill it out and mail it now. Shipment will be made when you are ready for the trees.

Very truly yours,
THE SILVA-BERGTHOLDT CO.

J. E. Bergtholdt,
Secretary and Manager.

P. S.—If you are planting for home orchard we call your particular attention to the prize combination offers we make on pages 30, 31 and 32, which not alone effect you a saving in cost, but give you a splendid selection of varieties.

S.-B. CO.

SILVA-BERGTHOLDT Co.
NEWCASTLE CALIFORNIA

Boiled-Down Suggestions for the Commercial Planter

In your planting seek to employ those varieties in which California enjoys a monopoly of the North American market, and which, not alone the present domestic demand, but the possibilities of its future development, aided by the growing export trade and the saving in cost of transportation by the Canal trade route, which will create a demand far in excess of the ability of the California grower to supply.

YOU MAKE NO MISTAKE PLANTING IN THESE VARIETIES ACCORDING TO THE ADAPTABILITY OF YOUR SOIL AND LOCATION.

PRUNES. A staple article of diet with a hundred million North Americans. Grown only in California. (The Italian Prune, grown to a limited extent in the Northwest, is not and never will be a competitor.) California Prunes have not only driven the European Prunes out of the North American markets, but are creating for themselves on account of their superior quality, a monopoly on the European markets.

SHIPPING PLUMS. California grows a splendid assortment of this fine fruit, and ripening from May to September in a succession of fancy varieties that for attractiveness, flavor and eating quality have no equal in any fruit grown. During the season of California shipping Plums they have a monopoly of all North American markets, and on account of their firm shipping quality are used also in the export trade. No other fruit grown like them during their season only in California.

CHERRIES. During their season of ripening the California Cherry is the only fruit of its kind in season. This gives it a monopoly of the entire North American markets, while its firmness will permit of its shipment to every consuming center within the territory named.

The distribution of the California Cherry is still in its infancy, and when this, the first and best fruit of the spring season, is made available for the hundred million people east of the Rockies and north, their consumption will be unlimited.

PEARS. California Bartletts, during their season of ripening, are the only Pear of their kind available. They have every market in this country at their command, and with the opening of the Canal trade routes will have access to every market of Northern Europe, and at less cost in transportation than the present rail route to New York.

Canned, like the Clingstone they do not rag out, and canned they are the dessert Pear of the world. Eastern grown Pears, canned, rag out, and are relegated to pie fruit.

California grown Fall Pears also meet with an enormous demand, both on the home market and for export.

CLINGSTONE PEACHES. The California Clingstone is the only Peach grown anywhere that will not rag out in the canning. Eastern and Northwestern grown Peaches rag out, and are relegated to pie fruit. This gives the California Clingstone a monopoly of the world's markets in this staple dessert. The possibilities of their future consumption in the world's markets are unlimited.

OLIVES. Grown only in California, have a monopoly of the North American markets, while the California Ripe Olive is a successful competitor on the European market, in that practically no European Olives can be pickled ripe and re-shipped, as can the California.

APRICOTS. Commercially grown only in California, while in the canned and dried state, California Apricots practically have a monopoly of the world's markets.

ALMONDS. Also are grown only in California, and for a generation California will be unable to supply the present consumption of Almonds in the North American markets.

WALNUTS. California also will produce 90 per cent of the Walnuts consumed in the North American markets, and will be unable for many years to supply the demand for this Nut.

TO FRUIT GROWERS

**The Best is the Cheapest, Although it May Not Always
be the Lowest in Price.**

TRUE ECONOMY IN TREE BUYING.

There is a sharp contrast between the old-time fruit rancher, who bought the cheapest tree obtainable, without consideration of quality, and the modern orchardist, who knows that the cheapest and most profitable method of buying trees is to buy the best. The trees and vines grown by us, detailed for you herewith, are the very best that care in selection and propagation can possibly produce.

We propagate only from parent trees and vines that have proved to be the very best of their kind, and the stock we sell will give you good and profitable service for a lifetime. **THAT, MR. FRUIT GROWER, IS WHAT YOU WANT.**

Herewith we submit for your careful consideration, a carefully compiled list of the most profitable varieties of trees and vines for the coming planting season. The descriptions here given and the recommendations made are founded upon actual facts, and are given in absolute sincerity and with a rigid regard to truth and accuracy. They are based upon our wide experience as fruit growers, nurserymen and fruit shippers. There is no phase of the fruit industry with which we are not familiar, hence, the advice here given may be absolutely relied upon.

We as nurserymen are experienced fruit growers and know well the planter's needs. For thirty-five years we have been growing hardy, well-rooted trees in this foothill region, where the peculiarly favorable soil and climatic conditions produce a strong, hardy top of well toughened wood fibre and well meshed root system.

A large list of the leading planters of the State have planted their orchards with our foothill grown trees, and with this test of time and experience and the financial results obtained by these planters from our trees have proven their merit, while by fair treatment we have built up a large nursery business. Our tree growing facilities are the best in the State. Our soil, drainage, location, climate and favorable tree growing conditions are superior to the river bottom and coast valley locations commonly chosen by other nurserymen.

From the selection and propagation of the infant bud right up to the distribution of the matured fruit, we are deeply and personally interested in every detail that tends to your success. It is only by this co-operative effort that the fruit industry of California can be made the success it deserves.

We never, under any circumstances, advocate the planting of new varieties until by personal and practical test that have proved their desirability, and instead of a long list of varieties, we only submit those which have proved their excellence.

No orchardist wants to plant all the varieties catalogued and recommended by the average nursery, but you do want those varieties that are best adapted to your locality and which will prove the most profitable.

THE ART OF SELECTION.

The secret of success among raisers of thoroughbred cattle, horses, dogs and other live stock lies in the great care taken in the selection for breeding. Some fruit growers realize the importance of this, but very few nurserymen have given it the attention it deserves. We have made it a life study. We never cut our buds and scions promiscuously, but we cut them only from trees that have been under our personal observation, and that are positively known to us to be the best specimens of their kind. This is the art of selection.

SEEDLING PITS VS. BUDDED PITS.

Many nurserymen propagate on peach seedlings grown from budded pits, such as Muir, Salway, etc., which tends to the deterioration of the tree so propagated. **THIS IS A WELL KNOWN FACT.** We take a lesson again from the stock raiser. Our Peach and Plum trees (on Peach root) are propagated on the natural Peach Seedling, i. e., seeds that for generations have grown from seedlings. Our trees may not be the cheapest, but they are the best that good care and intelligent application can produce. They will give you good service in the years to come, and that is what you want.

Boiled-Down Suggestions for the Commercial Planter

In your planting seek to employ those varieties in which California enjoys a monopoly of the North American market, and which, not alone the present domestic demand, but the possibilities of its future development, aided by the growing export trade and the saving in cost of transportation by the Canal trade route, which will create a demand far in excess of the ability of the California grower to supply.

YOU MAKE NO MISTAKE PLANTING IN THESE VARIETIES ACCORDING TO THE ADAPTABILITY OF YOUR SOIL AND LOCATION.

PRUNES. A staple article of diet with a hundred million North Americans. Grown only in California. (The Italian Prune, grown to a limited extent in the Northwest, is not and never will be a competitor.) California Prunes have not only driven the European Prunes out of the North American markets, but are creating for themselves on account of their superior quality, a monopoly on the European markets.

SHIPPING PLUMS. California grows a splendid assortment of this fine fruit, and ripening from May to September in a succession of fancy varieties that for attractiveness, flavor and eating quality have no equal in any fruit grown. During the season of California shipping Plums they have a monopoly of all North American markets, and on account of their firm shipping quality are used also in the export trade. No other fruit grown like them during their season only in California.

CHERRIES. During their season of ripening the California Cherry is the only fruit of its kind in season. This gives it a monopoly of the entire North American markets, while its firmness will permit of its shipment to every consuming center within the territory named.

The distribution of the California Cherry is still in its infancy, and when this, the first and best fruit of the spring season, is made available for the hundred million people east of the Rockies and north, their consumption will be unlimited.

PEARS. California Bartletts, during their season of ripening, are the only Pear of their kind available. They have every market in this country at their command, and with the opening of the Canal trade routes will have access to every market of Northern Europe, and at less cost in transportation than the present rail route to New York.

Canned, like the Clingstone they do not rag out, and canned they are the dessert Pear of the world. Eastern grown Pears, canned, rag out, and are relegated to pie fruit.

California grown Fall Pears also meet with an enormous demand, both on the home market and for export.

CLINGSTONE PEACHES. The California Clingstone is the only Peach grown anywhere that will not rag out in the canning. Eastern and Northwestern grown Peaches rag out, and are relegated to pie fruit. This gives the California Clingstone a monopoly of the world's markets in this staple dessert. The possibilities of their future consumption in the world's markets are unlimited.

OLIVES. Grown only in California, have a monopoly of the North American markets, while the California Ripe Olive is a successful competitor on the European market, in that practically no European Olives can be pickled ripe and re-shipped, as can the California.

APRICOTS. Commercially grown only in California, while in the canned and dried state, California Apricots practically have a monopoly of the world's markets.

ALMONDS. Also are grown only in California, and for a generation California will be unable to supply the present consumption of Almonds in the North American markets.

WALNUTS. California also will produce 90 per cent of the Walnuts consumed in the North American markets, and will be unable for many years to supply the demand for this Nut.

TO FRUIT GROWERS

**The Best is the Cheapest, Although it May Not Always
be the Lowest in Price.**

TRUE ECONOMY IN TREE BUYING.

There is a sharp contrast between the old-time fruit rancher, who bought the cheapest tree obtainable, without consideration of quality, and the modern orchardist, who knows that the cheapest and most profitable method of buying trees is to buy the best. The trees and vines grown by us, detailed for you herewith, are the very best that care in selection and propagation can possibly produce.

We propagate only from parent trees and vines that have proved to be the very best of their kind, and the stock we sell will give you good and profitable service for a lifetime. **THAT, MR. FRUIT GROWER, IS WHAT YOU WANT.**

Herewith we submit for your careful consideration, a carefully compiled list of the most profitable varieties of trees and vines for the coming planting season. The descriptions here given and the recommendations made are founded upon actual facts, and are given in absolute sincerity and with a rigid regard to truth and accuracy. They are based upon our wide experience as fruit growers, nurserymen and fruit shippers. There is no phase of the fruit industry with which we are not familiar, hence, the advice here given may be absolutely relied upon.

We as nurserymen are experienced fruit growers and know well the planter's needs. For thirty-five years we have been growing hardy, well-rooted trees in this foothill region, where the peculiarly favorable soil and climatic conditions produce a strong, hardy top of well toughened wood fibre and well meshed root system.

A large list of the leading planters of the State have planted their orchards with our foothill grown trees, and with this test of time and experience and the financial results obtained by these planters from our trees have proven their merit, while by fair treatment we have built up a large nursery business. Our tree growing facilities are the best in the State. Our soil, drainage, location, climate and favorable tree growing conditions are superior to the river bottom and coast valley locations commonly chosen by other nurserymen.

From the selection and propagation of the infant bud right up to the distribution of the matured fruit, we are deeply and personally interested in every detail that tends to your success. It is only by this co-operative effort that the fruit industry of California can be made the success it deserves.

We never, under any circumstances, advocate the planting of new varieties until by personal and practical test that have proved their desirability, and instead of a long list of varieties, we only submit those which have proved their excellence.

No orchardist wants to plant all the varieties catalogued and recommended by the average nursery, but you do want those varieties that are best adapted to your locality and which will prove the most profitable.

THE ART OF SELECTION.

The secret of success among raisers of thoroughbred cattle, horses, dogs and other live stock lies in the great care taken in the selection for breeding. Some fruit growers realize the importance of this, but very few nurserymen have given it the attention it deserves. We have made it a life study. We never cut our buds and scions promiscuously, but we cut them only from trees that have been under our personal observation, and that are positively known to us to be the best specimens of their kind. This is the art of selection.

SEEDLING PITS VS. BUDDED PITS.

Many nurserymen propagate on peach seedlings grown from budded pits, such as Muir, Salway, etc., which tends to the deterioration of the tree so propagated. **THIS IS A WELL KNOWN FACT.** We take a lesson again from the stock raiser. Our Peach and Plum trees (on Peach root) are propagated on the natural Peach Seedling, i. e., seeds that for generations have grown from seedlings. Our trees may not be the cheapest, but they are the best that good care and intelligent application can produce. They will give you good service in the years to come, and that is what you want.

To Correspondents

Order Early and thus assure yourself of just the varieties you want. Do not wait until your ground is ready to plant before sending in your order, but contract your trees now. Trees should be contracted by the planter as early as possible. Specify your wants on the order sheet enclosed, naming the kind of root that you desire for each variety, and specify the size tree that you prefer.

Name and Address. Always write your name and address plainly, giving Postoffice, County and State; also Street and Postoffice box number.

Shipping Directions. Give plain and explicit shipping directions.

Packing. We have an experienced yard crew. All packing is carefully and thoroughly done. We employ for the outside covering Tule, and for the inside Shingle-tow, which preserves the trees while in transit and insures their good condition on arrival. We make a nominal charge for cost of packing, which charge does not cover the cost of material used.

Shipping Season. December 15th to April 15th.

Terms of Payment. A deposit of one-tenth of amount of order is required with booking of order, balance payable cash on delivery of trees, we making draft through your local Bank or Express Office for amount of invoice, with Bill of Lading attached. Nurserymen are under heavy cash expenditure for the two years required in growing their trees, and when delivery is effected it is imperative that they realize these funds upon delivery of trees. Notes at from two to six months at 8 per cent will be taken from parties known to be responsible, and whose paper is good with their local bank.

Errors. We exercise great care in filling orders; but should an error occur, satisfactory correction will be made promptly on notification. To be entertained, claims for errors must be made immediately on receipt of stock.

Responsibility. We guarantee every tree and plant to be up to grade, clean and in thriving condition, but after delivering to transportation companies, all losses resulting from delay or exposure in transit are at the risk of purchaser, and we also disclaim any responsibility arising from defective planting or lack of care or adverse weather conditions after planting.

Guarantee. While we exercise the greatest care to have all trees and vines true to name, well grown and packed in the best possible manner, and hold ourselves in readiness to replace all trees and vines that may accidentally prove untrue to label, free of charge, it is mutually understood and agreed between the purchaser and ourselves that our guarantee of genuineness shall not in any case make us liable for any sum greater than that paid for the trees or vines that may prove untrue.

Price List. We publish a Price List of all trees and vines enumerated in this Catalogue. When ordering always consult the same for prices. Prices quoted are per each, per 10, per 100 and per 1000. Five of one kind going at the 10 rate; 50 at the 100 rate; 500 at the 1000 rate.

Agents. We want reliable agents in every district where we are not now represented. Address all correspondence to

The SILVA-BERGTHOLDT CO. NURSERIES

Newcastle, California

Tree Planting

Time to Plant. We do not recommend Fall planting. In California the growing season often extends up to December 1st, and to transplant trees before they are entirely dormant is injurious. However, we advise planting as early as conditions will allow, and from December 15th to February 1st is the best time to plant, thus giving to the tree the benefit of a large part of the season's rainfall. Place your order for trees as soon as you have ascertained your wants; but do not plant before December 15th.

Selection of Varieties. We discountenance promiscuous planting of any and all varieties—good, bad and indifferent. Select those only that you know to be adapted to and profitable for your district, using your own experience and observation to guide, and when in doubt consult those orchardists in your district who have made a success of fruit growing.

In California a great variation in soil and adaptability is often found in the same orchard, and a single fruit growing district may have a great diversity of these. Local horticultural conditions are of great importance in the matter of selection for planting, and as herein advised, the intending planter should familiarize himself with his local conditions, and the adaptability of the location where he is intending to plant, and choose only such varieties of fruits as are particularly adapted to his specific conditions, and of these only the most profitable sorts.

In tree buying especially you should deal only with a reliable nursery. Pay good prices (the cheapest is never the best) and demand first-class stock.

Preparation of Soil. The preparation of soil for orchard planting is of great importance. The soil must be put in the best possible condition before planting. In this preparatory work the grower is laying the ground work for a structure which is to stand for a number of years.

The most important feature to the tree which is transplanted (transplanting is always a shock to a tree) is to have the soil wherein it is being transplanted in the best possible receptive condition. If the tree receives a setback or is stunted in its growth during this critical period of the first weeks after its transplanting by reason of negligence, either in planting or in the preparation of the soil wherein it is planted, it will require a long time, sometimes to the second year for the tree to recover, and it sometimes never does.

Land should be thoroughly plowed and followed by harrowing until the soil is as friable as an ash heap. Wherever possible the land may be sub-soiled with splendid results. This is very desirable if blasting is not employed. Holes should never be dug smaller than two feet square by two feet deep, and the larger the better. Four feet square by 30 inches deep is none too large, but better still, we would advise the blasting of holes.

Dynamiting. The past few years has seen a great advance in the preparation of soils by means of blasting. The use of Giant Powder makes this work much easier, and puts the soil in much better condition for planting than by any other means. Blasting should be done preferably when the soil is dry, but blast in any event. Holes made by thorough blasting leaves the subsoil loose and capable of retaining and absorbing more moisture than would otherwise be possible. The roots are given more open material through which they can send their feeding roots, thus making an ideal condition. The amount of powder and the depth to which it should be placed depends on the character of the soil. In some soils one-quarter to one-half stick placed at a depth of two feet will be sufficient to do the work, but this depends entirely upon the nature of the soil and the sub-soil. On most locations from one-half to one stick of dynamite is necessary for good work.

We will be glad to furnish on application a booklet issued by the Powder Company, "Progressive Cultivation," which gives complete instructions as to how to proceed in the use of giant powder in the preparation of the soil for planting.

After blasting, and before planting, the tree holes should be examined to see that there is no cavity left in the hole. The soil should be settled back to place with the shovel.

Another system of blasting can be carried out by putting in a shot every 10 feet each way. This will break up the whole field, and is preferable to subsolling with the plow. While this procedure may entail some extra expense at the time of planting, yet the planter will be well repaid by the result obtained in the more rapid growth and early maturity of the trees planted.

The roots of plants serve the double purpose of supporting the plant above the ground and supplying it with food. In the case of orchard trees the roots should be strong enough and long enough to enable the tree to take hold of the soil to a considerable depth below the surface and to insure a strong anchorage. The depth of soil from which a plant can directly draw its food, including water, is limited by the depth to which the roots penetrate. If the roots are shallow the food is restricted and the plant grows feebly. If the roots go deep the source of food supply is much larger.

Mineral plant foods are made soluble and available by chemical action of moisture, and the roots do not directly take up this plant food unless they penetrate to a depth where the desired condition is available, and the planter cannot be too careful in preparing the soil previous to planting.

Care of Trees on Arrival. If not ready to plant on arrival, unpack without exposing the roots to the air; dig a trench in loose soil, cut the strings and put the trees in, side by side, and cover the roots with fine earth, being careful that it is well filtered in among the roots to keep them moist. Give a copious watering, if soil is dry.

If trees open up dry on arrival they should be taken from the package and buried in wet soil for several days and kept damp, when they will fully recover and be in good condition for planting.

Preparing Trees for Planting. With a sharp knife cut off all broken and bruised ends of roots. Cut back the tops to $1\frac{1}{2}$ to 2 feet high, and if branched cut back to two or three buds, leaving three or four branches so pruned as to make a symmetrical tree.

Shading. On account of our long, hot, dry Summer, it is advisable to shade the southwest, south and southwest to prevent sun-scald. This also will prevent borers, as they never attack a tree except at a point of injury. The shading can be done with two shakes or shingles, a Yucca tree protector, a piece of burlap, or whitewash also is a protection, as it reflects the heat.

Number of Trees Per Acre

DISTANCE APART	Equilateral		DISTANCE APART	Equilateral	
	Square Method	Triangle Method		Square Method	Triangle Method
1 foot apart each way.....	43,560	50,300	16 feet apart each way.....	170	196
2 feet apart each way.....	10,890	12,575	18 feet apart each way.....	134	154
3 feet apart each way.....	4,840	5,889	20 feet apart each way.....	109	125
4 feet apart each way.....	2,722	3,143	22 feet apart each way.....	90	104
5 feet apart each way.....	1,742	2,011	24 feet apart each way.....	76	88
6 feet apart each way.....	1,210	1,397	25 feet apart each way.....	69	79
7 feet apart each way.....	888	1,025	26 feet apart each way.....	64	74
8 feet apart each way.....	680	785	27 feet apart each way.....	60	69
9 feet apart each way.....	537	620	28 feet apart each way.....	56	65
10 feet apart each way.....	435	502	30 feet apart each way.....	48	55
12 feet apart each way.....	302	348	35 feet apart each way.....	35	40
14 feet apart each way.....	222	256	40 feet apart each way.....	27	31
15 feet apart each way.....	193	222			

Rule Square Method. Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill, which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to an acre.

Rule Equilateral Triangle Method. Divide the number required to the acre "square method" by the decimal 866. The result will be the number of plants required to the acre by this method.

After Culture. The growth and thriftiness of a newly planted tree depends upon the care received the first ninety days after planting. The ground should be kept free from grass and weeds, loose and well cultivated after each rain. Irrigation when available and regularly applied will work wonders in the growth of young trees.

Pruning, Cultivating, Fertilizing and Irrigating. All of them are very important topics for the horticulturalist, and very essential to his success. While we offer a few suggestions herein concerning some important features in horticulture, yet we cannot cover this ground and do justice to the subject involved. The science, practice and business of fruit growing is very ably treated by Prof. E. J. Wickson in his latest edition, "**California Fruits and How to Grow Them**," which constitutes a compendium of valuable information concerning the raising of fruit in California, which no orchardist can afford to be without. The cost of this book is \$3.00, and whether growing fruit for market or for home use, it is well worth many times that price. If you do not already have this valuable work, we advise that you procure one at once by addressing the Pacific Rural Press, San Francisco, or send us \$3.00 and we will be pleased to forward one to you.

Fertilizer. Usually an orchard planted on virgin soil produces the first few crops from the natural mineral plant food elements in the soil. After these are depleted, to a certain extent the question of fertilization becomes a factor in the further productiveness of the orchard. This question is a broad one and can only be touched on lightly at this time.

The mechanical condition of the soil has much to do with keeping up its fertility, that is, keeping the soil aerated, as the air plays an important part in its work with the soil bacteria which changes the nature of the plant food element.

The elements of potash and phosphoric acid are necessary to produce perfect fruit, and these may be added to the soil from time to time to take the place of that which is drawn from the soil from cropping. Very good results are obtained from some of the specially prepared fertilizers, but the grower must know the requirements of his own individual soil to get the best results.

The growing of cover crops during the winter season is a feature of great importance. This helps to keep the soil in good condition by adding humus to the soil. Winter Vetch and burr clover and other nitrogenous plants gather the nitrogen from the air and store it up in the roots in the form of nodules, and of these winter vetch and burr clover are the best to plant for this purpose, vetch being preferable with many growers. The growth produced

GOOD ROOTS—I beg to say that the trees I ordered of you are all doing well. Your trees had the best roots of any trees I have purchased for several years.—Chas. Holbrook, 58 Sutter Street, San Francisco, Cal.

gives a good cover to the soil and prevents packing by winter rains. It adds humus to the soil and imparts nitrogen at the rate of an average of 200 pounds per acre per season; and for the purpose of supplying sufficient potash and phosphates a commercial fertilizer comprising these two latter elements alone should be used in connection with the cover crop, and thus employed, fertilizing is less expensive and more productive of a desirable soil condition, and more productive of good results than by employing a complete commercial fertilizer comprising the three elements of fertilizing—nitrogen, phosphates and potash. Vetch should be sown in the orchard early in the Fall and cultivated into the soil, where it will be ready for the first rains of the season.

Thinning. We cannot urge upon orchardists too strongly the importance of this feature in fruit raising. The thinning of fruit should begin with the Winter pruning, and intimately connected with the pruning of bearing trees is the thinning of the fruit, or the proper spacing of each individual, so each shall have space and sap to allow its attainment of marketable size. The superior price for good sized fruit for all uses is unquestionable. It is the conclusion of our largest and most successful growers that, large as is the expenditure required for careful and systematic thinning of fruit, it is the most direct profitable outlay which they have to make for orchard maintenance.

No overburdened tree can discharge the twofold duty of every fruit bearing tree, which is to perfect this season's fruit and lay a strong foundation for next year's bearing.

The thinning of fruit should begin with the Winter pruning of bearing trees, as has already been urged. In connection with regulating the amount of bearing wood allotted to each tree. Reduction of the amount of fruit itself is the next proceeding, and this should not, as a rule, be undertaken until after the first drop and when the fruit has become well set upon the tree.

The universal practice is to use the hand in plucking or pushing off the small fruit. If the trees are low, as they should be, most of the work can be done from the ground. The distance which should be left between specimens depends upon conditions and upon the varieties being thinned. It is as unsatisfactory to thin by a set rule of inches as it is to prune by such a rule. The space allotted to each specimen depends upon the kind, age, vigor and strength of the tree, the size and thrift of the lateral which carries the fruit, the water supply, the richness of the soil, etc. If, however, a rule must be followed, let it be this, that the distance between each specimen shall be two and one-half times the diameter desired in the fruit. This would fix an arbitrary distance then, of four to six inches for apricots and six to eight inches for peaches, with other fruit according to their respective sizes.

Any such standard, however, considers only the size of fruit, not the strength of the tree, and therefore stops short of one of the important ends of thinning—that is, to conserve the strength of the tree for next season's crop. In addition to the rule above set forth, it is well to calculate also the burden which the tree should bear.

All kinds of fruit are clearly subject to increase of size by thinning, but it is with only the larger fruits that the practice prevails at present, such as pears, peaches, apples, plums and apricots.

Spraying. We cannot be too emphatic in impressing on the horticulturalist to spray his fruit trees and grape vines if he desires good fruit. Follow directions carefully. Experiments frequently result disastrously. Careless spraying will result in the loss of fruit and sometimes the tree. Every fruit grower should purchase a spraying apparatus; they can now be had for a small sum. Be careful to keep your solution continually stirred, and be careful also in its making so as to attain the desired chemical composition. The best time for spraying trees in foliage is late in the afternoon or during cloudy weather, except with kerosene emulsion; this should be used on bright, sunny days. Spraying thoroughly with the right chemical compound, for a specific purpose, is the most direct way of attaining the desired end. Furthermore, an early Fall spraying with Bordeaux, or an early Spring spray before the opening of the blossom, with lime, sulphur and salt solution, like an annual bath, is a very commendable practice and conducive to a healthful condition and a beneficial stimulant to the bark of the tree. No grower should be without a complete outfit. They can be had at a moderate cost.

Common Fruit Pests and their Treatment

Shothole Fungus. A fungus disease causing a perforation of the leaves as though done by a charge from a shotgun. It also makes ugly scars on the fruit, and thus renders it unsalable. This disease is more prevalent and causes more damage to Apricots than any other fruit, although it at times affects the leaves of Cherries, Plums and Almonds. A thorough use of a strong solution of Bordeaux (7x8) when the trees are still dormant, and a milder solution (3x5) when in foliage, is an effective preventive and cure.

Pear Blight. It is a widespread disease which occurs usually wherever Pears and some varieties of Apples are grown. It is caused by bacteria, which works entirely within the tree, and no spray application will do any good whatever. Where an infection has taken place in an orchard the bearing trees should be made to grow as slowly as possible, and should be pruned only in Summer, as Winter pruning promotes growth, while Summer pruning retards it. The orchard should be closely and regularly observed and all affected limbs cut off considerably below the point of infection, and after each cut, the pruning tools should be dipped in a bichloride of mercury antiseptic solution. Any pruning without this

STOCK FIRST-CLASS—The 400 trees purchased are growing nicely—every tree started—and I am well pleased. Your stock is first-class in every way. In my dealings I have found you are square and reliable. You will get my order this year as usual.—J. T. Montgomery, Vacaville, Cal.

application will tend to spread rather than lessen the disease. All removed parts should be promptly burned. As a precautionary measure, it is advisable also to cut out during the season all water shoots and small fruiting spurs growing upon the body of the tree, as these will communicate the disease directly to the framework of the tree, with the result that it will be fatally injured, whereas the most toughened wood fiber in the branches will resist and retard the progress of the disease until the same can be observed and cut out. It is very encouraging to note that in California the disease shows signs of relaxing the virulence which characterized its first attack, and the experience of the past few years has demonstrated that by exercise of care and attention, the blight can be controlled in some districts, so that it will cause but little damage, and entirely eliminated in others; and this can be done at no great expense.

Pear Scab or Apple Scab. A fungus disease causing a smoky appearance on the leaf and afterwards scabby patches on the fruit. This disease is always very prevalent during seasons of heavy rainfall, and where not controlled, frequently causes injury to and the loss of a large per cent of the growing crop. However, this can always be prevented by spraying thoroughly with Bordeaux mixture, making the first application just before the buds swell with (6x6) solution. For this first spray, Rex Lime-Sulphur-Salt Solution in the proportion of 1x16 can also be as effectively employed. This first spraying should be followed by a second spraying of Bordeaux mixture (4x6) solution just after the blossoms fall. In making the second, third and fourth applications for spraying for Apple and Pear Scab, the addition of 2½ pounds of lead arsenate to each gallon of the Bordeaux mixture makes the application answer also for Codling Moth. The third application should be given three weeks later than the second, and as a precautionary measure the fourth spraying three weeks afterwards will also insure its effectiveness. Where the application is made with the trees in foliage, a weaker solution of Bordeaux should be used (4x6) or (3x5).

Codling Moth. Is one of the great pests of the State. It preys chiefly upon Apples and Pears, but the Quince and other large fruits are sometimes invaded by it. There are two broods in a season. The first develops from worms that have wintered over in protected places, both above and in the ground. The moths of the first generation emerge in April, but very few eggs are laid before the middle of May. Moths of the second generation begin laying eggs early in August and continue to do so as late as October. It is the worms of the second generation that do the greatest amount of damage. The young worms hatch from the eggs about ten days after laying, and then begin crawling about in search of fruit. This short period between the hatching of the eggs and the entrance into the Apple or Pear is the only time that spraying operations can prove effective. The first spraying should be done as soon after the falling of the blossoms as possible, and should contain Bordeaux mixture (4x6) as a precaution against scab, and arsenate of lead (using 2½ pounds lead to each 50 gallons Bordeaux.) The second spraying should be applied from the last of May to the first ten days in June. For this spray use only 2 pounds arsenate of lead to 50 gallons water. No Bordeaux is necessary with this spray unless Pear Scab is in evidence. Very few eggs are laid during July. So if the second spraying has been applied about the first of June, it should suffice to control the attack of the first generation. The second generation worms begin operating about the first of August, so a spraying is due at this time. For the third spraying use 2 pounds of arsenate of lead to 50 gallons of water. In the case of Apples, where the fruit is to remain on the trees through September, they should receive another spraying about the first of September, using 1½ pounds of arsenate of lead to 50 gallons of water. The above simple schedule of spraying, if effectively carried out, will control the ravages of this destructive pest. And even where the insect is extremely abundant, by careful sprayings, there should not be over 3 per cent of wormy fruit. Spraying for whatever cause should always be done thoroughly and strictly in accord with directions.

Peach Moth. This larva is practically the most serious insect pest that the California peach grower has to contend with. The creature hibernates as a young larva in burrows in the crotches of the trees. As soon as the tree begins to grow in the Spring, the larva becomes active, eats its way out of its Winter home and bores into the new twigs. Later generations of the worm attack the fruit, and from this cause, where the proper remedial measures are not applied, much loss is sustained in wormy fruit. Destruction of larva in their Winter burrows overcomes all damage from this pest. This can be accomplished by thoroughly spraying with lime, sulphur and salt compound applied when the buds begin to swell, and just before they begin to open. It is very important that the application should be made at this time, for it is just at this time that the larva becomes active and leaves its Winter home. Great care should be exercised in the preparation of the lime, sulphur and salt compound in order that the desired chemical combination is attained and the spraying should be thoroughly done.

Several commercial lime, sulphur sprays are now used with good success in combating the Peach Moth, and these give as good results as the old homemade mixtures of lime, sulphur and salt, and they do away with a lot of hard, disagreeable work, and have the advantage of not deteriorating from standing after mixing, and the additional advantage of having each barrel of spray of an exact chemical composition. They do not have to be boiled in any way, but may be sprayed on the trees cold, while the homemade product has to be sprayed on the trees hot in order that the chemical combination may not be lost. The best commercial sulphur spray on the market is the Rex Lime-Sulphur mixture.

Peach Curl Leaf or Peach Blight. The most prevalent trouble with the Peach tree in California is the Curl Leaf or Peach Blight. Curl Leaf occurs in various degrees. Light cases often seem to injure neither tree nor fruit. Severe cases destroy the fruit and sometimes the tree itself. It is a specific fungus, begins its activity during the months of October, November and December, though to all appearances in a dormant state. In order to check the invasion on young bark by this fungus, spraying with Bordeaux (6x6) is imperative to protect the dormant twigs and the dormant buds. This spraying should be done as soon after the trees have become dormant, or have shed their foliage as possible, i. e., from October 20th to not later than November 30th, preferably from November 1st to November 15th. This spraying should not be left until late in December or January, for it is during the months of November and December that this fungus is active in its invasion of the dormant buds. Bordeaux, however, is a specific and positive remedial agent, and thor-

oughly applied from the 1st to the 15th of November, followed by a thorough spraying of lime, sulphur and salt solution when the buds begin to swell, will positively insure the Peach grower against damage from Peach Blight, Curl Leaf and Peach Moth.

San Jose Scale. This was formerly one of the worst and most widespread of the species of scales prevailing among fruit trees in California. But at the present, owing to the energetic war that fruit growers have had to wage against it, it has practically disappeared from the State. This species is readily distinguished by red blotches that are found wherever it stings any part of the tree. When the scales are present in large numbers, it causes complete discoloration of the bark. All varieties of deciduous fruits are subject to it, though Apricots and some varieties of Cherries are but little affected. A thorough spray with lime, sulphur and salt during the month of December and early in January is an effective remedy, and has been the means of ridding the State of this pest.

Grape Mildew. Caused by fungi which affect leaves, cane and berries, and is locally known as Mildew. This disease is recognized by greyish-white coloring on the affected leaves, which, as the disease progresses, shrivel and dry up. The young cane also blackens and dries, and the berries show whitish patches, which become darker colored as the berries crack and open. A thorough application of Bordeaux (5x5) just before the sap begins to flow is a preventative, as well as a highly beneficial wash for the vines, followed by an application of sublimed sulphur on the young foliage just after the blossoms have set, applied either by hand or preferably by suitable machinery, followed by three later applications at intervals of ten days or two weeks. This, properly applied, constitutes an effective remedy.

Thrips. Very minute insects infesting buds, leaves and blossoms of Pear, Prune, Cherry, Peach and many other trees. The attack on the leaves and buds causes them to wither and fall off. The Government formula for the control of Pear Thrips, which has given the best results, is made up as follows: Three per cent distillate oil emulsion to which is added tobacco "Black Leaf 40," at the rate of one part of tobacco to 1500 parts of spray mixture. Distillate Emulsion and "Black Leaf 40" may be obtained from dealers in spray supplies. Applications to be made just as the buds begin to open.

Red Spider. Very minute insects. They infest many orchards, especially Almond, Plum and Prune. The proper remedy is thoroughly dusting the trees with sulphur, which has been found most effective in controlling the RED SPIDER.

Phylloxera. This pest of the vine lives both upon the root and leaf, though in this State the root type only prevails. No remedy has yet been found effective other than by using roots resisting the insect.

Woolly Aphis. A louse of dark red color occurring in groups covered with a woolly substance which exudes from the bodies of the insect. The use of wood ashes around the tree close to the trunk has been beneficial, removing the earth from the root crown and applying from 2 to 5 pounds of tobacco dust, destroys the insect at this point. Kerosene emulsion applied to the soil at a depth of three inches or sufficient to partly expose the roots within a radius of from four to eight feet in diameter, depending upon the spread of the roots, is also an efficient remedy for stemming underground attacks. For above ground colonies, apply either a solution of whale oil soap or kerosene emulsion.

Peach Tree Borers. A small worm which works into the bark at or near the soil surface. The borers should be dug out with a knife in the Spring, and then an application of whitewash to which has been added arsenate of lead, should be made. This borer attacks only young trees that are impoverished or bark that has been sunburned. Preventative measures are very thorough cultivation and irrigation where it can be applied, and to protect from sunburn, give a coating of whitewash containing some soap and sulphur, or place shakes on the south and west sides of the tree. Yucca tree protectors are also effectively employed.

Rabbits. Great damage is done to young trees by this pest. Yucca tree protectors are not sufficient protection in that Mr. Jack browses above the top of any 16-inch protector. On our own ranches we have found a cheap and effective protector against any rabbit in a 12-inch wire cylinder made from 24-inch and 30-inch poultry netting, 2-inch mesh. Take 24-inch or 30-inch poultry netting, 2-inch mesh, cut it into 5-foot length. Fasten the loose ends making a 12-inch wire cylinder, place this over the tree and anchor with two or three 10-inch lengths of No. 10 or 12 wire, pressed into the ground and hooked over the bottom wire of the cylinder. Whitewash the tree with a solution of lime, whale oil soap and sulphur to protect from sunburn and borers also, or use Yucca tree protectors in addition to the wire cylinder.

Obnoxious Weeds. A weed is any plant growing out of place. Every plant growing in the orchard outside of those planted as a cover crop, takes a required amount of moisture from the soil, and if it be weeds they do this at the expense of the growing tree without imparting any beneficial element to the soil.

There are some weeds which we term obnoxious and with which we often find orchards and vineyards infested in California. These are most often Johnson Grass, Morning Glory, Bermuda Grass, Cocklebur and Thistles. The last two named may be easily eradicated if kept from seeding. The others propagated from root stalks as well as from seed are a very difficult problem. No plant life can exist if it is kept from air and sunlight, as these are absolutely necessary for successful plant growth. In combating Johnson Grass, Bermuda Grass and Morning Glory, it is necessary to keep up a constant warfare by cutting the grass a few inches under the surface every few days, so that it will be impossible for them to get to the surface. If this is rightly done there will be no propagation of the root stalks, but a constant weakening of the plant, and by this means persistently practiced its final eradication will be accomplished.

Remedial Solution and Formula

Bordeaux Mixture. This is the standard fungicide, and consists of a composition of copper sulphate (bluestone), fresh lime and water. As it is used for a preventative of nearly all fungi diseases, its proper preparation is a matter of great importance. The formula in most general use is as follows:

Copper Sulphate (Bluestone).....	5 pounds
Fresh Lime	5 pounds
Water	50 gallons

Upon dormant wood greater strength can be used, and sometimes more effectively. In that case a formula (6x6) or (6x7) is sometimes advisable, whereas, when spraying trees in foliage a larger proportion of lime should be used and a smaller proportion of bluestone, such as (4x6), and in the case of Peach trees in foliage (3x6). Dissolve the copper sulphate (bluestone) in 25 gallons of water, using a half barrel for the purpose. To dissolve the copper sulphate (bluestone) readily, it should be placed in a coarse cloth bag and suspended in the water so that the sulphate is just covered. It will not dissolve readily if the sulphate is placed at the bottom of the vessel. The fresh lime should be dissolved in another vessel, using only a small amount of water at first and adding more as the process of slacking progresses. Then dilute to 25 gallons. The copper sulphate (bluestone) solution and the milk of lime should then be poured together into a third vessel, which may be the spraying barrel. It is best to strain the materials when pouring them together. It is very important that equal amounts of the two solutions are poured together at the same time. Do not pour the copper sulphate (bluestone) into the milk of lime or vice versa. Otherwise the proper chemical combinations will not take place, and the desired results will not be obtained by the spraying. Both should be poured together into the third barrel or alternately ladled into it. A proper preparation of Bordeaux Mixture, as stated, is the standard fungicide. Applied in the Fall from November 1st to 15th is a sure preventative of Peach Blight, Curl Leaf, Shot-hole Fungus, etc.

Insecticides With Bordeaux Mixture. In spraying for Apple or Pear Scab, it is advisable to add some of the stomach poisons, such as Paris green or arsenate of lead, to the Bordeaux Mixture. In this way, spraying for both insects and fungi is accomplished in a single operation. Paris green is generally used at a rate of $\frac{1}{2}$ pound of green to 50 gallons of Bordeaux. The arsenate of lead at from $1\frac{1}{2}$ pounds to 3 pounds to 50 gallons of Bordeaux.

Lime, Sulphur and Salt Compound. This is an effective spray material, both for fungicide and insecticide in its action. For San Jose Scale it should be applied in December. For Peach Moth it is more effective than any other spray and should be applied just before the buds begin to swell.

Lime	30 pounds
Sulphur	20 pounds
Salt	15 pounds
Water	60 gallons

Place 10 pounds of lime and 20 pounds of sulphur in a boiler with 20 gallons of water, and boil over a brisk fire for not less than $1\frac{1}{2}$ to 2 hours or until the sulphur is thoroughly dissolved. When this takes place, the mixture will be of an amber color. Next place in the cask 20 pounds of unslacked lime, pouring over it enough hot water to thoroughly slack it, and while it is boiling add 15 pounds of salt. When this is dissolved add to the sulphur in the boiler and cook for half an hour longer, when the necessary amount of water to mix the 60 gallons should be added.

Rex Mixture, a reliable commercial lime-sulphur-salt preparation, in the proportion of one gallon of Mixture to 16 gallons water can be as effectively used, as the best homemade preparation, and at a great saving of time and labor.

Kerosene Emulsion.

Laundry Soap, chipped.....	$\frac{1}{2}$ pound
Kerosene	2 gallons
Water	1 gallon

Dissolve the soap in the full amount of water, and when this solution is boiling hot, remove from the fire and add the kerosene. Stir the mixture violently by driving it through a force pump back into a vessel until it becomes a creamy mass that will not separate. This requires from five to ten minutes. For use on dormant trees use one part of this emulsion to 8 to 10 parts of water. For use on trees in leaf, one part of emulsion to 15 or 20 of water. In all cases it should be kept thoroughly stirred, otherwise the foliage or even the twigs may be injured. Kerosene emulsion kills by contact, and, therefore, the application should be very thorough. It may be used against a great many different pests, but is especially valuable for those with sucking mouth parts, for they cannot be killed with arsenical poisons. Three per cent solution of kerosene emulsion to which "Black Leaf 40" is added at the rate of one part of "Black Leaf 40" to 1500 parts of spray applied just as the buds are swelling and are about to open has in many instances proven effective against Thrips.

Paris Green. In combination with Bordeaux Mixture Paris green may be used at a rate of $\frac{1}{2}$ pound to 50 gallons of water. When Bordeaux Mixture is unnecessary, Paris green may be used at the same rate, but two or three pounds of freshly slacked lime must be added to prevent burning the foliage. Keep the mixture well stirred so that the poison will be evenly distributed. In cases where successive sprayings are necessary, it is important to consider the accumulation of poison and use a slightly weaker mixture unless sufficient rain has fallen to thoroughly wash off the poison.

Arsenate of Lead. This poison is in many respects more satisfactory for spraying purposes. It is more adhesive than Paris green, and for that reason effective for a longer period of time, and will not burn the foliage. While costing a little more than Paris green,

arsenate of lead is generally regarded as more economical in the end because of its superior sticking quality, and hence greater efficiency. There are many good commercial brands on the market which can be purchased from any dealer in spray material, or through any wholesale druggist. For most purposes from 2 to 3 pounds of the commercial preparation with 3 pounds lime are used together in 50 gallons of water.

Whale Oil Soap. This can be purchased from any dealer in sprays, or through any wholesale druggist. Shave up the soap and dissolve in hot water. Then add cold water until the desired strength of one pound of soap to 5 or 6 gallons of water is reached. Whale oil soap is used effectively against Woolly Aphis on the roots, or Woolly Aphis, Black Aphis and other sucking insects in the tops.

Black Leaf as Insecticide. Another good insecticide for contact spray for sucking insects, such as Aphids, is the Tobacco spray in "Black Leaf 40," which is used, one pint of extract to 200 gallons of water. This is easy to apply, and is very effective in combating sucking insects. It has been demonstrated that adding one pound or so of soap (Whale Oil Soap is the best) will add to the sticking and spreading qualities.

Root Stocks and their Adaptability

Myrobolan. A species of wild plum employed as a root stock upon which to propagate Prunes, Plums, Apricots and Almonds.

Myrobolan is a very hardy, thrifty grower; is a deep feeder; will thrive well in heavy soil or on locations subject to a short period of excessive moisture, though no root stock will take kindly to a long continued water-logged condition.

Myrobolan will thrive in soil too wet for Peach, Almond and Apricot root, and will endure the same amount of moisture as Standard French Pear root.

The conditions most favorable to the Myrobolan root are deep, rich black or sandy loam (such as a bottom land location), or a deep, fertile, heavy black soil, such as is common in our coast valleys, and on some interior valley locations. Like any other tree, on dry locations it is benefited by irrigation, but being a deep feeder it penetrates to moisture.

Myrobolan will thrive on decomposed slate soil, but should not be planted in a decomposed granite formation where the bedrock comes within three feet of the surface.

Myrobolan is, without exception, the best stock for Prunes and Plums on any location of good depth of soil, and for Apricots on any location subject to more excessive moisture than an Apricot or Peach root will endure, and for Almonds on locations where Peach root will drown out, such as a swale or a spot within your block of Almond too wet for Peach or Almond root.

Peach. The natural Peach Seedling should always be employed in preference to a Muir, Salway or other budded seedling.

Should be planted only on locations subject to good drainage. Peach root will thrive on well drained creek and river bottom locations where the soil is not water-logged for a long period. Being a surface feeder it does well in the more shallow soil locations where the bedrock or hardpan come within 1½ to 2 feet from the surface.

Peach root thrives well and is benefited by irrigation. Peach root is the only stock to be employed on which to propagate a Peach of any variety. No variety of Peach will take kindly to any other root.

Peach root should be employed for Plums and Prunes on shallow soil, on decomposed granite, or on a light sandy formation. Apricots thrive well on Peach root, and in any soil adapted to Peach root Apricots will do practically as well on Peach root as they will on Apricot root, and for Apricot there is very little desirability as between Peach and Apricot for a root stock.

Peach will endure a greater degree of moisture than Almond, and on any location under irrigation, or on any location where the water level is too near the surface for an Almond root or too wet for an Almond root, Peach is preferable to the Almond as a root stock for the Almond, and on a great many locations on which Almond on Almond are now planted, Almond on Peach root would be preferably employed. On any high, dry location of good depth of soil, not subject to irrigation, the Almond root is always preferable to Peach for the Almond, but under irrigation, or on a location subject to more moisture than the Almond root will take kindly to, Peach root is always preferable as a root stock for the Almond.

Almond. In the Almond the Bitter Almond should always be employed.

Almond root is a deep feeder, and is well adapted to any well drained location of good depth of soil.

Almond root should never be planted where the soil is of slow drainage, or where the soil is subject to a short period of excessive moisture, or where the water level comes to within six feet of the surface.

On a location not subject to irrigation, well drained and of good depth of soil. Bitter Almond is the best stock for the Almond. Under irrigation, in shallow soil, or on locations inclined to slow drainage, the Peach is preferable as a root stock for the Almond.

ALL WALNUTS GROWING—Out of the 210 Walnut trees I got from you last winter, they all made a good start and are doing fine. Will not lose a tree in the lot.—Joe Hendricks, Lakeport, Cal.

Apricot root is employed most largely as a root stock for the Apricot, though Peach root on most locations is of equal desirability. On some deep, well drained locations not subject to excessive moisture Apricot also can be successfully employed as a root stock for Plums and Prunes.

For Plums and Prunes on hillside locations not irrigated but of good depth of soil, the Bitter Almond will make a desirable root stock.

Apricot. Apricot root requires practically the same soil conditions as does the Peach, and will thrive in any deep, well drained location. Will endure more moisture than the Almond root, but not any more than the Peach, and not as much as the Myrobalan.

Mazzard Cherry. Mazzard Cherry is a deep feeder and thrifty grower, and while it will not endure "wet feet," yet it will thrive on any location adapted to Peach or Apricot root, and will endure more moisture than the Mahaleb root.

Eighty per cent of Cherry planting is on the Mazzard root, the Mazzard being generally preferred to the Mahaleb on most all locations, particularly where there is good depth and fertility of soil.

Mazzard also is less subject to gumming and die-back than Cherry on Mahaleb.

Mazzard is employed only as a root stock for Cherry.

Mahaleb Cherry. Mahaleb Cherry will not endure the same amount of moisture as the Mazzard. Requiring more perfect and more rapid drainage. Mahaleb is inclined to surface feeding, and by some planters is deemed a better root stock for Cherry on shallow and less fertile soil locations than the Mazzard. Shallow locations, however, are not usually deemed desirable for commercial Cherry planting.

A small percentage of the Cherries planted are on the Mahaleb root. On any location where the depth and nature of soil are favorable to the production of Cherries, Mazzard is deemed the better stock.

Standard French Pear. The Standard French Pear Seedling has been employed a great many years in California as the standard root stock for Pear.

It will thrive on a great many locations; will endure a larger amount of moisture and poor drainage, as well as considerable flooding, such as is sometimes experienced on river or creek bottom locations.

French Pear will thrive in most any soil, though like any other root stock will take most kindly to deep, fertile, well drained locations.

The French Pear is deemed preferable to the Keifer Pear, employed in the East as a root stock, and is employed more largely than any other on which to propagate Pear.

Japanese Pear. A Seedling stock employed in Japan and China on which to propagate the Pear. Has been employed as a root stock for Pear in the Northwestern States for a period of eight or ten years. It is not inclined to sucker, and on that account largely, it has been reputed to be more blight resistant than the French Pear. Authorities consulted do not aver that it is more blight resistant than the French. Stating that it has not yet been sufficiently long under observation to definitely determine its blight resistance, or to definitely determine its desirability as a root stock for the Pear over the French Pear, and we have so far been unable to obtain from any reliable source the positive information that the Japanese root is blight resistant.

Prof. Waite, of the Department of Agriculture, advises that they are reputed to be less subject to blight attack than the French, but from his own knowledge and observation, could not give any positive information to that effect, stating, however, that from some sources it had been reported to him that when the trees attain an age of 6 to 10 years they show a dwarfing tendency, which would be an undesirable feature. Growing a Pear tree you want a tree as large and as thrifty as any root stock will produce.

Some nurserymen are advertising the Japanese root as being not only blight resistant, but in every way more desirable than the French Pear, without, however, their having had an opportunity to learn from any reliable source, or from experience and observation, that their statements are correct. As long as there is this measure of uncertainty, one cannot recommend the Japanese root as preferable to the Standard French, though in all probability, the Japanese root in California may be equally as desirable as the French.

We propagate on both, but cannot recommend one over the other until the fact has been definitely determined by experience and observation.

Quince. Quince root will endure more moisture than Pear, Myrobalan or any other root employed as a root stock. It is used most largely on which to propagate the Quince. Is used also to some extent for the propagation of Pear and Apple. Pear and Apple, however, on Quince root will grow a dwarf tree, and for commercial purposes a dwarf tree is not as profitable, nor as desirable, as a standard.

Quince will thrive well on any soil or location adapted to any other root stock for fruit, and will endure more moisture than any other.

Picholine Olive. Picholine will grow a deeper feeding root system, and is a more thrifty grower than a root system grown from a cutting of the Mission or other propagated varieties. Without a doubt a better root stock for the Olive than a root system grown from a cutting.

Apple Seedling. Crab Apple Seedling is the root stock most commonly employed for the propagation of the Apple. Will thrive and do well on any location adapted to Pear root. Will endure the same amount of moisture as the Pear, but will do best on all deep, fertile, well drained locations.

Apples should be propagated only on Apple root.

Price List, Season 1915-16

APPLE ON APPLE ROOT.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$15.00	\$125.00
3 to 4 feet.....	.25	2.00	13.50	115.00
2 to 3 feet.....	.25	1.75	12.00	100.00

Varieties—Summer.

Alexander	Red Astrachan
Early Harvest	Red June
Gravenstein	White Astrachan

Fall.

Jonathan	Rome Beauty
McIntosh Red	Wagner
Ortley	Yellow Bellflower

Winter.

Arkansas	Yellow Newtown Pippin
Baldwin	Rhode Island Greening
Delicious	White Winter Pearmain
Grimes Golden Pippin	Snitzenburg
King David	Winesap
Mammoth Black Twig	Winter Banana

CRAB APPLE.

Hyslop	Red Siberian
	Yellow Siberian

ALMOND ON ALMOND AND PEACH ROOTS.

	Each	10	100	1000
4 to 6 feet.....	\$0.35	\$2.50	\$20.00	\$175.00
3 to 4 feet.....	.30	2.25	18.50	160.00
2 to 3 feet.....	.25	2.00	17.00	145.00
1 to 2 feet.....	.20	1.75	13.50	110.00

Varieties on Almond and Peach Root.

Drakes	Nonpareil
I X L	Peerless
Ne Plus Ultra	Texas

ALMOND ON MYROBOLAN ROOT.

	Each	10	100	1000
4 to 6 feet.....	\$0.35	\$3.00	\$25.00	.....
3 to 4 feet.....	.30	2.50	21.00	.....
2 to 3 feet.....	.25	2.00	17.50	.....
1 to 2 feet.....	.20	1.75	14.50	.....

Varieties on Myrobolan Root.

Drakes	Nonpareil
I X L	Peerless
Ne Plus Ultra	Texas

APRICOT ON APRICOT, PEACH AND MYROBOLAN ROOT.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$19.00	\$160.00
3 to 4 feet.....	.25	2.00	16.00	125.00
2 to 3 feet.....	.20	1.75	9.00	80.00

Varieties on Apricot, Myrobolan and Peach Root.

Blenheim	Newcastle Early
Hemiskirk	Routier's Peach
Tilton	Royal
Moorepark	

CLINGSTONE PEACHES.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.25	\$15.00	\$125.00
3 to 4 feet.....	.25	2.00	12.50	100.00
2 to 3 feet.....	.20	1.75	10.00	85.00
1 to 2 feet.....	.15	1.25	9.00	75.00

Albright	McKevitt
Butteland	Orange Runyon
Hauss	Phillips
Levi	Tuscan Cling
McDevitt	White Heath

PRUNE ON MYROBOLAN PEACH AND BITTER ALMOND.

	Each	10	100	1000
4 to 6 feet.....	\$0.35	\$3.00	\$20.00	\$170.00
3 to 4 feet.....	.30	2.50	17.50	140.00
2 to 3 feet.....	.25	2.00	15.00	115.00

Varieties on Myrobolan Root.

Conquest	Robe de Sargent
French	Standard
Imperial	Sugar

Varieties on Peach Root.

French	Standard
--------	----------

Varieties on Almond Root.

French	Sugar
--------	-------

PEARS ON STANDARD FRENCH AND JAPANESE PEAR ROOT.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$17.50	\$150.00
3 to 4 feet.....	.25	2.00	15.00	125.00
2 to 3 feet.....	.20	1.50	10.00	80.00

Bartlett	Comice
Beurre d'Anjou	Easter Beurre
Beurre Rosc	Morceau
Beurre Hardy	Lawson
Beurre Clairgeau Glout	Wildor
Crocker Bartlett	Winter Nelis

PEAR ON QUINCE.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$15.00	\$125.00
3 to 4 feet.....	.25	2.00	13.50	115.00
2 to 3 feet.....	.20	1.50	12.00	100.00

Varieties.

Bartlett	Comice
Beurre d'Anjou	Winter Nelis

CHERRIES ON MAZZARD AND MAHA-LEB ROOTS.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$17.50	\$150.00
3 to 4 feet.....	.25	2.00	13.00	115.00
2 to 3 feet.....	.20	1.50	11.00	90.00

Varieties on Mazzard Root.

Black Oregon	Centennial
Black Tartarian	Early Chapman
Bing	Early Purple Guingee
Burbank	Knights Early Black

Varieties on Mahaleb Root.

Black Oregon	Burbank
Black Tartarian	Lambert
Bing	Royal Ann

PLUM ON MYROBOLAN, PEACH AND ALMOND ROOT.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$18.00	\$160.00
3 to 4 feet.....	.25	2.00	15.00	125.00
2 to 3 feet.....	.20	1.50	13.50	110.00

Varieties on Myrobolan Root.

Beauty	Grand Duke
Burbank	Giant
Climax	Hungarian
Clyman	Imperial Gage
Coe's Golden Drop	Jefferson
Damson	Kelsey
Diamond	President
California Blue	Santa Rosa
Fellenberg	Satsuma
Formosa	Tragedy
Gaviota	Wickson
German	Van Deman

Varieties on Peach Root.

Beauty	Grand Duke
Burbank	Hungarian
Climax	Jefferson
Clyman	President
Diamond	Santa Rosa
Formosa	Satsuma
California Blue	Tragedy
Gaviota	Wickson
Giant	

Varieties on Almond Root.

Beauty	Grand Duke
Climax	Hungarian
California Blue	Kelsey
Coe's Golden Drop	Santa Rosa
Diamond	Wickson
Formosa	Tragedy
Gaviota	Satsuma

FREESTONE PEACHES—MAYFLOWER.

	Each	10	100	1000
4 to 6 feet.....	\$0.35	\$2.50	\$22.50	\$190.00
3 to 4 feet.....	.30	2.25	20.00	165.00
2 to 3 feet.....	.25	2.00	18.50	150.00

FREESTONE PEACHES—ALEXANDER, TRIUMPH, ST. JOHN, HALE'S EARLY, STRAWBERRY FREE.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.50	\$19.00	\$160.00
3 to 4 feet.....	.25	2.00	17.00	135.00
2 to 3 feet.....	.20	1.50	14.00	120.00

FREESTONE PEACHES—OTHER VARIETIES.

	Each	10	100	1000
4 to 6 feet.....	\$0.30	\$2.25	\$15.50	\$125.00
3 to 4 feet.....	.25	2.00	13.50	100.00
2 to 3 feet.....	.20	1.75	10.50	85.00

Varieties.

Early Crawford	Salway
Fay Elberta	Late Crawford
Muir	Lovell
Foster	Elberta
Hale's Early	

OLIVES ON PICHOLINE ROOT

	Each	10	100	1000
6 to 8 feet..	\$1.00	\$7.50	\$60.00	\$500.00
4 to 6 feet..	.85	6.50	50.00	400.00
3 to 4 feet..	.75	5.50	40.00	300.00
2 to 3 feet..	.65	4.50	30.00	250.00

Varieties.

Manzanillo	Sevilano
Mission	

OLIVES GROWN FROM CUTTINGS

	Each	10	100	1000
6 to 8 feet..	\$1.00	\$8.00	\$55.00	\$450.00
4 to 6 feet..	.75	6.50	45.00	400.00
3 to 4 feet..	.60	5.00	35.00	250.00
2 to 3 feet..	.50	3.50	25.00	125.00

WALNUT GRAFTED ON BLACK WALNUT.

	Each	10	100	1000
6 to 8 feet..	\$1.00	\$8.00	\$60.00	\$550.00
4 to 6 feet..	.85	7.00	50.00	450.00
3 to 4 feet..	.70	5.00	40.00	350.00
2 to 3 feet..	.60	4.00	30.00	250.00

Varieties.

Franquette	Placentia Perfection
Mayette	Santa Barbara

PECAN GRAFTED.

	Each	10
4 to 6 feet.....	\$1.75	\$15.00
3 to 4 feet.....	1.50	12.50

Stewart

QUINCES.

	Each	10	100	1000
4 to 6 feet.....	\$0.35	\$3.00	\$21.00	\$180.00
3 to 4 feet.....	.30	2.50	18.00	155.00
2 to 3 feet.....	.25	2.00	16.50	125.00

Varieties.

Orange	Pineapple
Smyrna	Yellow Egg
Reas Mammoth	

PERSIMMONS.

	Each	10	100	1000
4 to 6 feet.....	\$0.40	\$3.00	\$25.00	\$175.00
3 to 4 feet.....	.35	2.50	20.00	125.00

Varieties.

Hachiya	Mammoth Goshio
Hyakume	Tane-Nashi

FIGS.

	Each	10	100	1000
4 to 6 feet.....	\$0.40	\$3.00	\$20.00	\$175.00
3 to 4 feet.....	.35	2.50	17.50	145.00
2 to 3 feet.....	.30	2.00	15.00	115.00

Varieties.

Calimyrna	White Adriatic
California Black	Capri

NECTARINE.

	Each	10	100	1000
4 to 6 feet.....	\$0.40	\$3.50	\$25.00	.....
3 to 4 feet.....	.35	3.00	20.00	.....

Varieties.

Boston	Stanwick
New White	

ORANGE, LEMON AND POMELO.

	Each	10	100	1000
$\frac{1}{2}$ to $\frac{5}{8}$ inch.....	\$1.00	\$3.00	\$60.00	.....
$\frac{5}{8}$ to $\frac{1}{2}$ inch.....	.90	7.00	55.00	.....

ORANGES.

Ruby Blood	Valencia Late
Tangerine	Washington Navel
Thompson Improved Navel	

LEMONS.

Eureka	Villa Franc
Lisbon	

POMELO

Free	Triumph
Marsh Seedless	

TABLE GRAPES

European Varieties

	Each	10	100	1000
Rooted Vines..	\$0.10	\$0.75	\$2.50	\$17.50

Varieties.

Black Ferrera	Gros Coleman
Black Morocco	Malaga
Black Prince	Mission
Blue Malvoise	Muscat
Cornichon	Purple Damascus
Emperor	Rose Peru
Fontainbleu	Thompson Seedless
Tokay	

GRAPES.

American Varieties.

	Each	10	100	1000
Rooted Vines..	\$0.20	\$1.50	\$10.00	.....

Varieties.

Catawba	Werden
Concord	

RASPBERRIES AND BLACKBERRIES.

	Each	10	100	1000
Rooted Plants....	\$0.10	\$0.75	\$2.50	\$15.00

Raspberries—Varieties.

Cuthbert	King
Hansel	

Blackberries—Varieties.

Lawton Blackberry	Lucretia Dewberry
-------------------	-------------------

STRAWBERRIES

	Each	10	100	1000
Dollar	\$0.10	\$0.50	\$2.00	\$30.00

LOGANBERRIES.

	Each	10	100	1000
Rooted Plants....	\$0.10	\$0.75	\$5.00	\$30.00

PHENOMENAL BERRIES.

	Each	10	100	1000
Rooted Plants....	\$0.15	\$1.00	\$7.50	\$50.00

GOOSEBERRIES.

	Each	10	100	1000
1 Year Plants..	\$0.25	\$2.00	\$15.00	.....
Downing		Oregon	Champion	

CURRANTS.

	Each	10	100	1000
	\$0.15	\$1.25	\$10.00	.....

Varieties.

Cherry	White Grape
Fay's Prolific	

SEEDLINGS.

Bitter Almond.....	\$0.08
Myrobalan.....	.08
French Pear.....	.08
Mazzard .....	.08
Mahaleb .....	.08
Natural Peach.....	.08
Apple .....	.08

Almonds

On this continent Almonds are grown in California only, and have for a market the entire consuming population of North America. The demands of the American market alone require four times the Almonds now grown in California. And with this unlimited home market, Almond growing in California is still in its infancy, and Almonds are commercially rated as one of the best money makers.

The trees are long lived, and when planted in localities adapted to their culture, are in every way a safe and profitable investment. Under normally favorable conditions Almonds are regularly productive of an income of \$125 to \$250 per acre.

The best standard varieties are the following: Nonpareil, I X L, Peerless, Drake's Seedling, Texas Prolific and Ne Plus Ultra. Of these varieties Nonpareil and Drake's Seedling, or Nonpareil and Texas Prolific, are deemed the heaviest producers, although in some localities I X L, Peerless and Ne Plus Ultra do equally well when planted in combination with Nonpareil, and with Drake's Seedling or Texas Prolific as a pollinizer. Texas Prolific or Drake's Seedling should also be planted with either or any of the other two varieties for the purpose of cross pollenization.

I X L. Tree is sturdy, upright grower; nuts large; shell soft, perfect. It bears heavily and regularly in most localities where Almonds are grown; is highly recommended by orchardists who have tried it, and is usually planted in combination with Nonpareil and Drake's, or Nonpareil and Texas.

Ne Plus Ultra. Tree a rapid grower; a heavy and regular bearer; nuts large and very long in shape; shells soft; hulls readily.

Nonpareil. Tree a strong grower and an extraordinarily heavy bearer, with very thin shell; of the papershell type; one of the best, and this nut always sells at a premium of from one to several cents per pound over other varieties. Usually planted in the following

FINE ROOTS—The trees you sent me had fine roots, and with proper care have made a very fine growth, some having grown over five feet since they were planted this spring. If I do any more planting I'll know where to get good roots on young trees.—Theo. Heine-meyer, Wrights, Cal.

combination: One of Texas Prolific or Drake's to two Nonpareil; one Texas or Drake's, one I X L, one Nonpareil; one Ne Plus Ultra, one I X L and one Nonpareil; or one I X L, one Peerless, one Nonpareil. The Peerless in the latter being employed as the pollinizer.

Peerless. A very popular variety; grown very extensively in the Sacramento Valley, where it is highly esteemed and given preference by many growers to the I X L, which it closely resembles, excepting that the nut is much larger. Tree thrifty grower; heavy bearer. Employed also as a pollinizer of I X L and Nonpareil. More heavily productive than I X L and Nonpareil.

Texas Prolific. A variety introduced some eighteen years ago from Texas. First planted east of Acampo, where for fifteen years it has never failed to fruit regularly and heavily. Late bloomer; a splendid pollinizer of Nonpareil and I X L; nut is a soft shell, very similar to Drake's Seedling, and on the market they sell for the same price as the Drake's Seedling. On account of their wonderful productiveness and their efficiency as a pollinizer they are one of the best for profit.

Apricots

Apricots, like Almonds, are grown commercially only in California, where they can be successfully grown in many localities. In those sections adapted to their production they are as profitable as Oranges in Riverside (you know what that means), realizing to growers an average income of from \$175 to \$300 per acre.

There is a growing demand for this fruit which the California orchards cannot supply. Green, canned and dried, they have the entire North American continent for a market. Canned and dried they are used extensively in the export trade, where they compete successfully in European markets with the home grown product.

Of the varieties most largely planted for canning, drying and shipping, the Royal and Blenheim are the best. In some very early districts the Newcastle Early is very profitable, while in other localities the Tilton and Moorpark are also rated good. For several years there has been a shortage of Apricot trees, and with the good prices being realized for this year's crop, we anticipate a heavy demand for our trees—far in excess of the supply. At present we have a fine block of trees growing on Apricot, Peach and Myroblan root.

Newcastle Early. Medium sized, round; freestone; not quite as large as the Royal, nor of as good substance, nor quite as rich in flavor, but more highly colored. Its time of ripening is ten days earlier than the Royal; a medium grower and a good bearer. Its earliness is its commendable feature. June 1st to 10th.

Royal. The leading California Apricot. Very large, oval; skin dull yellow with orange cheek very faintly tinged with red; flesh pale orange, firm and juicy, with a rich, vinous flavor. Tree a strong grower and a good bearer. Fruit ripens evenly; a favorite with canners; excellent for drying, and one of the best also for distant shipment. June 1st to 20th.

Blenheim. Large, oval; surface orange with deep yellow tinge; flesh yellow; juicy and rich. Tree a vigorous grower and a prolific bearer. Fruit runs a little larger than the Royal. This variety is a great favorite for Eastern shipment; is a good dryer and is highly prized by canners. Blenheim and Royal constitute the two best money makers in Apricots. June 15th to 30th.

Routier's Peach Apricot. Fruit very large, rather flattened; skin orange yellow with a blush of red; flesh of fine saffron red, juicy, rich and highly flavored. When dried is of deep golden yellow color. Its large size and fine color render it very attractive, both in the green and dried state. June 20th to 30th.

Tilton. In general appearance resembles the Routier Peach Apricot. It ripens uniformly, and is exceedingly firm. Flesh of orange yellow with a very high pronounced Apricot flavor. Not only dries well, but is valuable for canning and shipping. Already very much in demand by canners. A late bloomer, and so far in its history has given evidence of remarkable fruitfulness. June 15th to 30th.

Hemiskirk. A fine English variety; large, roundish; skin orange with red cheek; flesh bright orange, tender, juicy, rich and luscious, with a plumlike flavor. Very hardy, and a more regular bearer than the Moorpark. June 20th to 30th.

Moorpark. Fruit large, roundish; skin orange with a shade of deep orange or brown in the sun; flesh quite firm, bright orange; parts free from the stone; juicy, with a rich and luscious flavor. A splendid Apricot on account of its extremely large size for canning, drying and shipping purposes. A desirable variety in a locality where it will bear regularly. In some sections though, it is inclined to be shy. We do not recommend them for planting unless in your section you have had a chance to observe them in bearing. They are said to produce well in the Santa Clara and Upper San Joaquin Valleys. June 25th to July 10th.

Apples

Apples are more largely consumed by the people of all lands than any other fruit. It is unfortunate for the California fruit grower that they can be as successfully grown, and to as fine a degree of perfection, in a great many localities in the United States as is possible in the most favored locations for the production in this State. On that account

there has been an enormous acreage of this fruit planted in the West and Northwest, and in these locations Apples are grown to a degree of perfection hitherto unequalled even by the older Apple growing sections of the East. In course of time the demand for this fruit will undoubtedly equal the supply to an extent that will make their culture profitable, yet on account of the great flood of Apples that will be harvested in the coming years from the West, Northwest and Middle West, our California grown Fall and Winter Apples will have to meet the heavy competition from these other localities. Unlike Prunes, Apricots, Cling Peaches and other fruits in which the California grown product has a monopoly on the markets of the world, the California grown Apple will have to take second place to the Apples grown in other great Apple producing sections for some time to come.

For these reasons, while we have trees to sell, we cannot conscientiously advise the extensive commercial planting of Fall and Winter Apples, although in course of time we believe that the demand for this fruit in the local markets of California, and also for export, will be such as to make their culture profitable. At present the income averages from \$75 to \$200 per acre.

What we say of Fall and Winter Apples, however, does not apply to the Early Summer and Midsummer sorts. These ripening as they do in advance of the Northwestern and Eastern grown Apple, have the markets of the East, North and South open for their consumption, and can be profitably grown without competition from the other localities. Among these varieties Red Astrachan, White Astrachan, Alexander and the famous Gravenstein offer a prospect nearly as flattering as the growing of most any other varieties of fruit. Average income on Summer varieties ranges from \$150 to \$300 per acre.

The Fall and Winter varieties being well known, we do not offer any special choices, but leave them to your selection if you contemplate planting them.

What we say relative to the advisability of planting Apples is where the planting is contemplated for commercial purposes. For home orchard, Apples should constitute a large proportion of your planting.

Summer Varieties

Alexander. Large, conical; greenish yellow, streaked with orange and bright red in the sun; flesh yellowish white. Its large size and excellent cooking quality make it a desirable market sort; productive and profitable. August 15th to September 15th.

Early Harvest. Medium size; bright straw color; tender and fine, with a pleasant sharpness; good for table and cooking; last of June and early July.

Gravenstein. Large, rather flattened; skin yellow; freely marked with light and deep red and orange; flesh tender, crisp, highly flavored, aromatic; a strong growing and heavily bearing tree. Its beautiful appearance, fine eating quality, uniformly large size and good keeping quality make it the best Apple of the Summer season, and open to it every market of the United States, Mexico and Canada, creating a demand always greater than the supply, and at very remunerative prices. This, together with its productiveness, makes it one of the best for profit, and we freely commend this variety for extensive planting. July 20th to September 1st.

Red June. Medium size; flesh white; tender, juicy and sub-acid. An abundant bearer. June.

Red Astrachan. Large, roundish; nearly covered with deep crimson, overspread with deep bloom; juicy, rich, sub-acid flavor; attractive, fine eating and one of the best for same. The main reliance for an early Apple. In great demand on both the coast and inter-mountain markets, and a profitable market variety. July 1st to 31st, according to its location.

White Astrachan. Very large, roundish; skin smooth and nearly white; flesh white. A fine cooking Apple and on account of its earliness, symmetry and uniformly large size and productiveness, a very valuable market variety and extensively grown in the foothills, Sacramento Valley, San Joaquin Valley and many coast sections. July 15th to August 15th.

Fall Varieties

Jonathan. A beautiful, brilliant, red Apple, highly flavored and of excellent quality; being tender, juicy and rich. A splendid family sort. Tree is long-lived, productive and an early bearer of wide adaptability and for market ranks as the best Fall Apple. Orchardists East and West are increasing their planting of Jonathan. In quality and market value Jonathan excels all other Fall Apples. October.

Rome Beauty. Uniformly large and smooth, shaded and striped with bright red; blooms late and is an annual bearer. An old favorite that has not been planted as widely as it deserves, but one of the standards in all Apple growing regions. Particularly desirable in the higher altitudes where late blooming is a desirable feature. It has an established reputation on all markets; its size and great beauty insure for it ready sale. A fine Apple with many good qualities and few faults. One of the surest bearers under all conditions. October and November.

Wagner. Beautiful, brilliant, red Apple, with contrasting pale yellow; fine eating quality. Tree strong grower and good bearer. Valuable market sort. October and November.

Yellow Bellflower. Very large, oblong; smooth lemon color, with blush; flesh tender, juicy, crisp, with slightly sub-acid flavor; tree a strong grower and good producer. A universal favorite. Keeps well and into the Winter. Ranks as one of the best for profit. October to January.

Winter Varieties

Arkansas Black. Medium to large; slightly conical; surface a beautiful dark maroon, shaded in black; flesh very firm, fine grained and juicy; tree vigorous and productive. A valuable market sort. November to March.

Ben Davis. A large Apple, very handsomely striped in red on a yellow background; good quality; tree very hardy, vigorous and productive; a late keeper. Highly esteemed as a valuable market variety. November to February.

Delicious. (See Stark's Delicious.)

Gano. Identical with Black Ben Davis. Fruit dark red; flesh white, tender, moderately juicy. Tree vigorous, hardy and a regular and prolific bearer. November to April.

Grime's Golden Pippin. Medium to large. Skin golden yellow with fine red stripe sprinkled with gray dots. Beautiful appearance and excellent eating qualities. November 1st to January 1st.

King David. (See Stark's King David.)

Mammoth Black Twig. A native of Tennessee. The original tree is now fifty years old and still vigorous and bearing. Fruit large to very large, roundish; dark red, slightly streaked; flesh firm, yellow, juicy and of excellent quality; a fine keeper. Its size, fine appearance, good eating and keeping quality make it a valuable market sort. November to March.

Ortley. Fruit medium to large; roundish, oblong, greenish-yellow; flesh white, fine grained; tender and juicy; very pleasant. November to February.

Rhode Island Greening. Large, greenish-yellow; succeeds on a great variety of soils; flesh yellow, fine grained, tender, crisp, juicy and aromatic; excellent for cooking and table. A valuable sort in warm, dry climates, adapting itself to any climate. A good market Apple. October to December.

Spitzenburg. This variety and Yellow Newton Pippin have broken all records for profit in the Pacific Northwest and some sections of California; oblong and smooth; nearly covered with rich, lively red; on shady side, yellowish with broken stripes of red; flesh very firm, crisp, juicy, with a delicious aromatic flavor. An old stand-by whose popularity has never waned, and which is now still one of the very best for profit. Tree a good, upright grower, hardy and productive. November to April.

Stark's Delicious. Large, surface almost covered with beautiful brilliant dark red, blending to beautiful yellow at the blossom end. Flavor sweet, slightly touched with acid, with an aroma delightfully fragrant. Flesh is fine grained, crisp and exceedingly juicy. In keeping quality it ranks with the best. One of the strongest, hardiest and most vigorous growers, Aphid resistant and a late bloomer—a valuable feature. A splendid Winter Apple, and on the markets deemed as one of the very best. Described by Stark Bros., the originators, as the best Winter Apple ever produced. November to April.

Stark's King David. Described by Stark Bros., the originators, as one of the most beautiful Apples grown, being a cross between Jonathan and Arkansas Black. Medium to large; color a deep rich red with distinct markings of dark red; tree hardy, strong and vigorous. A young and heavy bearer. A remarkable keeper, destined to be one of the best Winter Apples for either market or home use.

Winesap. Medium sized to large, oblong; skin smooth, dark red; flesh yellow, firm, crisp, with a rich, spicy flavor; excellent for table and one of the best marketable Winter Apples. Productive. November to February.

White Winter Pearmain. Medium to large, oblong; pale yellow, sprinkled with minute brown dots; flesh yellowish, crisp and juicy; very pleasant sub-acid flavor. Succeeds well in all parts. A standard market sort and a great favorite with many growers. November to February.

Winter Banana. Fruit large size, perfect in form; golden yellow, beautifully shaded and marbled with bright crimson red; flesh lemon-yellow, fine grained, sub-acid, rich aromatic flavor and of the highest quality. A good keeper, tree remarkably strong grower and on account of its great hardiness will thrive in any climate. An early bearer, producing fruit the second year. A valuable market variety. November to April.

Yellow Newtown Pippin. Large, roundish and of slightly irregular shape; skin smooth, golden yellow, with reddish cheek; flesh firm, crisp and juicy and of excellent eating and cooking quality; tree strong and exceedingly productive. A WONDERFUL KEEPER. Yellow Newtown Pippin and Spitzenburg sell for higher prices on both the home and foreign markets than any other Winter Apple. These two are considered the best and most profitable Winter Apples grown on the Pacific Coast and in the Pacific Northwest. October to May.

Crab Apples

(Prices Same as Apples.)

Hyslop Crab. Fruit large, deep crimson, covered with thick bloom; tree vigorous. One of the most popular Crabs. November.

Red Siberian. Smooth, glossy, hardy and splashed with red. Firm and juicy; extremely hardy and prolific. Excellent for jellies and preserves. October.

Yellow Siberian. Very similar to Red Siberian, excepting the color, which is a beautiful glossy yellow. October.

Cherries

Cherries are the first, the most attractive and the best fruit of the Summer season. Ripening as they do in California, in advance of the Cherries grown in every other section of the country, the California grown Cherry is to our brother living east of the Sierras, the first herald of the breaking up of Winter and the coming of the Summer season. They greet him with a cheery "Cheer up! Cherries are ripe!" and at the same time tempt his palate at the expense of his purse.

Everywhere our Cherries are great favorites. They have a monopoly of every market, and there never has been enough of them. California Cherries have good keeping qualities and can be shipped in good order to every market in the land. They can be grown in many localities, and a well kept Cherry orchard in full bloom will, year for year, match the income of the best kept Orange and Lemon groves of the south. A fair average income from a well kept block of Cherry trees in full bearing will range from \$400 to \$600 per acre, and many growers have been known to make occasional records of \$1000 per acre or more.

Early Purple Gulgne. Medium size to small; heart shaped; light red; tender, juicy and sweet; fairly productive. The earliest marketable Cherry, and chiefly valuable on that account only. April 20th to May 1st.

Early Champion. Large black; very juicy; firm and of fine eating quality. Resembles in some respects the Tartarian, but will not average quite as large. Good shipper; productive and very valuable on account of its earliness. Ripening immediately in advance of Tartarian, they are the first of the large black Cherries on the market, and always sell at a premium. In early districts they constitute, with Burbank, one of the best Cherries to plant for big profits. April 25th to May 10th.

Burbank. A valuable new introduction by Luther Burbank. A fine, very large black Cherry. Flesh purple, firm and of good flavor. Ripening in advance of Tartarian, its large size, good keeping quality and earliness make it the most profitable early Cherry. Being the first large black, firm Cherry on the Eastern markets, they sell at fabulous prices. Have been in bearing for some years at Vacaville and reported to be very productive. Has demonstrated its merits and can be recommended for extensive planting. April 25th to May 10th.

Black Tartarian. The standard early black Cherry; large to very large; purplish black; dark purplish flesh; juicy and of excellent flavor; splendid shippers; regularly productive, and on account of its earliness and fine quality is one of the best for profit. In the early districts Early Chapman, Burbank and Black Tartarian should be more largely planted than any other varieties for distant shipment. May 5th to 25th.

Bing. A fine, extra large black Cherry; of good eating and good shipping quality; fairly productive. Ripening immediately after the Tartarian its fine, large size and appearance, excellent eating and shipping quality make it one of the best and most profitable market Cherries. May 15th to June 10th.

Royal Ann. Pale yellow, richly mottled with red; large to extra large; very firm; juicy and sweet; good eating and magnificent for display and a good shipper. Canned, they have no equal; very productive. They are good sellers in both the Eastern and Pacific Coast markets. Owing to the rapidly growing demand for canned Cherries, this variety has a good future, and we do not hesitate to recommend them for extensive planting. May 18th to June 10th.

Lambert. An exceptionally large black Cherry; very firm; juicy and sweet and of the peculiar yet exquisite flavor; an excellent shipper; regularly productive. This variety comes highly recommended from Oregon. We have observed them in bearing in this district for ten years, and are favorably impressed with them, constituting, with Bing, the two best Black Cherries for market immediately following the ripening of Black Tartarian. June 5th to 20th.

Black Oregon. Medium to large; jet black; very firm, dark; flesh of exquisite sub-acid flavor. Will carry to any point in perfect condition, and is a great favorite for distant shipment. Very productive. May 28th to June 20th.

Clingstone Peaches

1915 crop of Clingstone Peaches suffered on account of the war conditions of Fall, 1914. Disturbed and stagnated business, causing a vast curtailment of consumption, while the discontinuance of regular ocean traffic curtailed the export trade. As a result cannerymen went into the season of 1915 with an enormous carry over of Clingstone Peaches and with a heavy 1915 crop, cannerymen curtailed their pack of Clingstones, and prices for the 1915 crop were much lower than conditions really justified.

The past few weeks, in spite of war conditions, CLINGSTONE PEACHES HAVE COME BACK WITH A JOLT. The heavy demand for canned Clingstones (both for domestic consumption and the export trade) has consumed practically all of the available supply.

CANNERS ARE EXTREMELY SORRY NOW THAT THEY DID NOT INCREASE THEIR THIS YEAR'S PACK OF CLINGSTONE PEACHES. There will be a famine in

ONE HUNDRED PER CENT GROWING—In answer to your inquiry, I am glad to report 100 per cent of my trees growing.—Mrs. T. J. Armstrong, Edenvale, Cal.

canned Clingstones long before next season's pack is available. This recovery, on the part of Clingstone Peaches, during the present disturbed business conditions, reiterates what we have heretofore advised, **THAT THE CALIFORNIA CLINGSTONE PEACH IS THE CANNED PEACH, NOT ALONE OF THIS CONTINENT, BUT OF THE WORLD,** and in no other locality can a canning Peach equal in quality be produced. Clingstone Peaches are grown and canned in other localities in this country and Europe, but canned, they rag out and are relegated to pie fruit. This gives to the California Clingstone Peach a monopoly of the world's market as a canned peach for dessert, **GIVING STABILITY AND ASSURANCE TO THE GROWING OF CLINGSTONE PEACHES IN CALIFORNIA.**

Clingstone Peaches are more easily grown and handled than any other fruit. They are regular and heavy producers over a wide range of territory in California, and on account of the regular and heavy productiveness, and the monopoly of the world's market which they enjoy, they are one of the most reliable fruits to plant for profit.

Under normal conditions Clingstone Peaches have averaged, when in full bearing, an income of from \$175 to \$300 per acre, and we have known numerous instances where growers have averaged from \$400 to \$600 per acre for a season's crop.

Our Clingstone Peaches are all worked on the Natural Peach Seedling, whereas, it is the common custom of nurserymen to employ either a Muir or Salway Seedling. Experience proves that the Natural Peach Seedling makes a hardier tree and a better root system.

TUSCAN, HAUSS AND PHILLIPS are more largely planted than any other variety, and are the best of the list, while Levi is a late canning Clingstone, regularly productive, of desirable quality and profitable, and prolongs the season of this fruit.

Would call your special attention to **OUR IMPROVED TUSCAN** Cling, likewise the **HAUSS** Cling, and **OUR TRUE TYPE OF PHILLIPS**. These are the strains we put out in these varieties. We carry them in our general collection at the regular price, and do not charge you a premium for these improved strains, as do other nurserymen.

Canners also have long sought a desirable midsummer Cling to fill the intermission between the ripening of Tuscan and Phillips, one of better quality than Orange, McDevitt and Albright, and of equal quality to the Phillips. This variety has been discovered in what is known as the **HAUSS CLING**.

PLANTING CLINGS, THE BEST COMBINATION OF VARIETIES, AND ONE THAT IS NOT OFFERED BY ANY OTHER NURSERYMEN IS, OUR IMPROVED TUSCAN, OUR HAUSS AND OUR TRUE TYPE OF PHILLIPS CLING.

Improved Tuscan Cling. Very large; very handsomely colored; flesh yellow; of fine texture and of excellent flavor; good shipper; very productive and prized by canners on account of its superior canning quality. July 13th to 27th.

Nurserymen commonly propagate the Oblong Tuscan. We propagate, for the Tuscan, only this Improved Round Tuscan, which, in the following features, is preferable in every way to the common Tuscan: First, more regularly productive; second, perfectly round, uniform size and symmetry; third, they do not split pit; fourth, they do not gum; fifth, they do not windfall; sixth, they are finer grained and of superior canning quality, commanding a premium at any cannery over the ordinary Tuscan.

The parent trees of this particular strain of Tuscan have been under the observation of Mr. R. W. Skinner, an experienced fruit grower and cannery superintendent of Yuba City for a period of twenty years. The parent trees have been in bearing for a great many years on an old ranch at Yuba City. The owner being absent, this ranch has been rented to Chinamen, and the merits of this Peach have gone unnoticed during these years by all excepting Mr. Skinner. In our investigation for improved strains this particular block of trees was brought to our attention by Mr. Skinner who, for twenty years, has been familiar with their performance, and is competent to judge, and our own observation and investigation fully confirms that of Mr. Skinner's in the desirable features named above. We have submitted samples of the fruit to all the large canners of the State for processing, and they unreservedly testify to the superior canning quality of this particular strain over the common Tuscan.

We propagate all of our Tuscan from this strain, and include them in our general collection, and do not charge you a premium in price for this improved variety.

Hauss Cling. Canners have long sought a desirable midsummer Cling to fill the intermission between the ripening of the Tuscan and Phillips—one of better quality than the Orange, McDevitt and Albright, and of equal quality to the Phillips. This variety has been discovered in what is known as the **HAUSS CLING**. First introduced by Mr. Hauss of Yuba City, which we are offering this year in the yearling trees in our general collection, we being the first nurserymen to discover the merits of this Cling, and to propagate it extensively. A seedling from the Phillips Cling, it is a large yellow Cling; clear yellow to the pit; pit small and round; no spike; flesh fine grained and excellent quality. This Peach is very similar and of equal quality and productiveness to the Phillips. It has been in bearing a number of years at Yuba City, and ripening immediately after the Tuscan, during the intermission between the Tuscan and Phillips, when canners are running light and no other Cling of equal desirability available, this variety is highly prized, and where now planted will, for a great many years, command a premium over any other Cling on account of its time of ripening, when canners will pay a premium in order to keep their plant busy. We have carefully observed this Cling, and have satisfied ourselves as to its merits. Season July 20th to August 1st.

Note the following communication the testimonial given concerning this Cling by the cannery who has handled the crop from the ranch of Mr. Hauss for the past five years:

"After having packed the Hauss Cling Peaches year after year, for a period of five (5) years, we are now pleased to give you voluntarily this statement as to its desirability for canning purposes.

"The Hauss Cling is harvested after the Tuscan variety and before the heavy tonnage of midsummers are straining the capacity of most canning plants. It is, therefore, received by the packer at an opportune time. In transportation it carries splendidly and shrinks less than other varieties. It is a more beautifully colored fruit, both before and after canning, than either the Tuscan or the Phillips varieties, and in flavor, while having an individuality of its own, it partakes of the characteristics of both the varieties aforementioned.

"In packing we find that there is less waste than in other varieties, the pit being very small and the meat firm and particularly suitable for canning. We find that of all varieties none produce as large a quantity of high grades in proportion as do the Hauss Cling.

"In conclusion, from the canner's view point, we can assure you that for the results which can be attained we certainly prefer it to all other varieties.

"We sincerely trust you will meet with unlimited success in your introduction of the Hauss Cling further among the growers of your district, and are confident that any who will plant and cultivate it will find it a truly profitable investment."

Runyon's Orange Cling. Fruit very large; yellow with dark crimson cheek; flesh yellow; rich and sugary with the finest flavor; good bearer; good for shipping, canning and drying. August 5th to 20th.

Phillips Cling. A fine, large, yellow Cling; clear yellow to the pit, which is very small; flesh yellow and fine grained; tree thrifty and regularly productive; preferred by canners to any other later variety of cling.

It is not generally known and not realized by either fruit growers or nurserymen that the Phillips Cling is deteriorating from the true type of the Phillips Cling in the promiscuous successive propagations commonly practiced by nurserymen. This fact has been observed by us for several years, and we propagate our Phillips Cling from a block of old trees of this variety that have an excellent record for productiveness and quality of fruit, and that are but one generation removed from the original Phillips Cling first introduced, and that are in every way true to the original type.

McDevitt. Fruit large; yellow with red cheek, flesh yellow, rich and good flavor, productive and good for shipping. Also a desirable canning variety. Very similar to Runyon's Orange Cling. August 5th to 20th.

Albright Cling. Fruit large; flesh yellow; fine grained and of excellent canning quality; productive and desirable either as a shipping or canning peach; one of the best of the old midsummer Cling varieties. August 5th to 20th.

McKevitt. A California seedling introduced by A. McKevitt of Vacaville, and recognized today as one of the grandest white Clings. Skin clear, creamy white with delicate blush of red; flesh firm; rich, sugary and highly flavored. As a white canning Peach it has no superior. A good shipper, productive and a thrifty grower. August 26th to September 15th.

White Heath. A most delicious Cling; very large; skin downy, creamy white, with faint blush of red; flesh white, slightly red at the pit. Very tender, juicy and sweet, valuable for canning. September 5th to 20th.

Levi. Syn. Henrietta or Salway Cling. A fine Cling of large size; surface deep yellow, with a shade of deep purplish red; flesh firm, juicy and sweet. Highly esteemed for canning and a very desirable Peach for Eastern shipment. Ripening after the Phillips and prolonging the canning season, they are sought for by canners on that account. A good bearer and a profitable variety for planting. September 2d to 25th.

Freestone Peaches

California grown midsummer and late Freestone Peaches are brought into competition on the Eastern markets with the Eastern and Southern grown Elberta and other varieties, and on that account are often made to suffer in the prices realized. However, owing to the superior carrying qualities of the California grown Peach, they can be shipped to every point in the United States, and shippers are usually able to find a market for the California product in some section of the east, north, west or south not reached by the Eastern grown fruit. However, for the reasons stated, we cannot recommend the extensive planting in Freestone varieties, with the exception of those that ripen in advance of the movement of the Eastern and Southern crops. These are Mayflower, Alexander, Triumph, St. John. Those ripening in advance of the Southern Elberta find a good market and a profitable sale.

For commercial planting we do not advocate the planting of Freestone Peaches, excepting in the very early variety named. For home orchard, however, like Apples, there is no fruit that will give you the service or the satisfaction as a nice assortment of Freestone Peaches ripening through the season.

Average income on—

Early Shipping Varieties.....	\$150 to \$200 per acre
Later Shipping Varieties.....	50 to 75 per acre
Drying and Canning Freestone Varieties.....	50 to 75 per acre

Mayflower. From North Carolina. The earliest Peach grown; absolutely red all over; flesh white; juicy and of excellent Peach flavor, and as large as Alexander, and ripens two weeks earlier; medium size; tree is strong grower; blooms late; heavy bearer and requires thinning. June 1st to 15th.

Alexander. Medium to large; greenish white; Clingstone, with red cheek; flesh white and juicy; bears transportation well. Heretofore most largely grown as earliest variety; and profitable mainly on that account. The strain we propagate from is a good and regular bearer. June 8th to 20th.

Triumph. Ripens with the last Alexanders and the first half of Hale's Early. Earliest yellow Peach; medium to large; part Clingstone. Surface yellow, deeply mottled with red; flesh bright yellow; sweet, juicy and excellent flavor. A good shipper, a sure and regular bearer. Some growers have difficulty growing them to size, though under proper cultivation, irrigation, pruning, thinning, etc., there is no difficulty in this regard. We have planted them extensively ourselves, considering them one of the best early Peaches. June 12th to 30th.

Hale's Early. Medium to large; Clingstone; surface white, shaded with red; flesh white, delicious and juicy; a good shipper; fairly productive, but on account of its being surpassed in quality by the Triumph we do not recommend very extensive planting for Eastern shipment. June 18th to July 6th.

St. John. The earliest yellow Freestone; medium size to large; surface a beautifully colored yellow with red cheek; flesh yellow, sweet and toothsome; for eating, one of the best of the season. Of excellent shipping quality, productive, and we do not hesitate to recommend them as a profitable early Freestone. Some strains of this variety produce small fruit, but the trees from which we propagate are of a strain which produces Peaches of nearly the same size as the Early Crawford. June 28th to July 15th.

Early Crawford. Medium to very large; oblong, Freestone; skin yellow with tinge of red; flesh yellow, rich and of excellent eating quality. Good for canning, drying or for Eastern shipment. This variety is well known and will continue to be a standard, profitable sort. July 10th to 27th.

Foster. Medium to large; round; Freestone; surface yellow with red cheek; flesh yellow, sweet and juicy. Good for canning, drying or for Eastern shipment. Budding from a strain that is a regular bearer, productive and of excellent quality. For our own planting we would prefer this variety to the Early Crawford. July 15th to 31st.

Strawberry Free. Medium to large; white, mottled with dark red near the pit; juicy, with a rich, delicious flavor, a very attractive dessert fruit. A desirable variety for home orchard; a good, marketable sort also, but not as good as the early Freestone varieties for distant shipment. July 15th to 31st.

Elberta. A fine Peach and a standard midsummer Freestone; very large, round, oval, of uniform size and symmetrical; very attractive. Surface rich golden yellow, with faint red stripes. Flesh yellow, juicy and of delicious flavor. Excellent also for canning and drying. A very prolific bearer; free from gum; not subject to split pit, and very rarely affected by peach moth.

Fay-Elberta. An improved Elberta, a magnificent Peach, and without question the best of the whole summer season. This Peach originated from a chance seedling in the orchard of John Adams, Newcastle. It resembles the Elberta in size, productiveness and freedom from gum, split pit or peach moth. It surpasses the Elberta in flavor, color and eating quality, being large to very large, of uniform size, symmetrical, of rich golden yellow, mottled in deep red; flesh yellow, of firm texture; very fine grain; juicy and of delightful flavor. It is a few days later than Elberta. Pre-eminently this Peach stands out on account of its canning quality, being fine grained and of fine texture; canned it will not rag out, but will retain its form as well as a Clingstone. As a canning Freestone it is preferable to either Muir or Lovell, and is also a good dryer. July 31st to August 15th.

Late Crawford. Very large Freestone; roundish surface; yellow with red cheek; flesh deep yellow, juicy and of excellent quality; very firm; a good shipper; good for canning or drying. A popular and well known variety; a profitable sort for canning, but does not compare with either the Fay-Elberta or the Elberta. July 24th to August 13th.

Muir. A large, perfect Freestone; surface yellow; flesh yellow, dense and sweet. A regular and prolific bearer. The best of all Freestone Peaches for drying and good also for canning. July 27th to August 15th.

Lovell. A California Seedling; large Freestone and almost perfectly round; flesh yellow and of excellent quality. Tree a strong grower and prolific. A good shipper; excellent for drying and one of the best canning Freestones. August 5th to 20th.

Salway. A large, perfect Freestone; surface creamy yellow with red cheek; flesh deep yellow, rich and sweet; a good shipper; a good canner and excellent also for drying. A standard late Freestone. Of late years they have not been profitable for market, and are now desirable mainly as a late Freestone for home orchard. August 25th to September 15th.

Shipping Plums

Shipping Plums in California are grown to a degree of perfection that is not equalled by those of any other locality, and their peculiar adaptability to the climate and soil of California permits of a wide selection of fancy varieties. Every one of them is equal in desirability and attractiveness to the best of any fruit grown. During their season of ripening the California Plum is the only fruit of this kind available to the markets of the entire United States and Canada, and with the opening of the Panama Canal they can be delivered to the markets of Europe within very nearly the same time and at a less cost than is now possible by rail to New York and Boston. This opens up an immense new field for this fruit, and the demand will be almost unlimited. For some years we have

advised the extensive planting of Shipping Plums. In our own orchards we have a large acreage and complete assortment of all the standard varieties, and they are exceedingly profitable, the annual average income being from \$175 to \$300 per acre.

There are a number of choice varieties of equal desirability, and of both Japanese and European origin. Ripening in the order named, a good assortment to plant is the following: Beauty, Climax, Formosa, Tragedy, California Blue, Santa Rosa, Gaviota, Wickson, German, Diamond, Kelsey, Grand Duke, Hungarian and President.

We have a complete assortment of the various varieties on Myrobolan, Bitter Almond and Natural Peach Seedling root.

Clyman. California Seedling introduced by Leonard Coates. Large, roundish, oblong, flattened; mottled reddish purple, beautiful blue bloom; Freestone; flesh firm, juicy and sweet and of a slight vinous flavor. A good bearer in most localities, though inclined to be an intermittent bearer in some sections. Of excellent shipping quality and valuable mainly on account of its earliness. June 3d to 17th.

Beauty. (Japanese.) Similar in size, quality, texture and appearance to Climax, but ripens over two weeks in advance of Climax and one week to ten days in advance of Formosa. Fruit medium large; heart shaped; color brilliant red; flesh yellow and of exquisite flavor. The earliest Plum, and being the first on the market, its large size, attractiveness and good eating quality make it one of the best money makers, it being sold on the Eastern market without a competitor in any other variety. This is one of Burbank's recent and best introductions. On account of its good quality and extreme earliness, this Plum is more profitable than Climax. We have planted extensively to them in our own orchards, and freely recommend them as one of the best for profit. June 1st to 10th.

Tragedy. (California Seedling.) Medium to large, oblong; purplish blue, with a beautiful deep blue bloom; Freestone; flesh greenish yellow, sweet, juicy and very delicious. Tree a remarkably strong grower, but an intermittent bearer. The Tragedy is a great favorite in the Eastern markets and always sells at remunerative and sometimes fabulous prices. It has been a good money maker for growers on the Sacramento River in spite of its intermittent and alternative bearing proclivities, cropping very light some years and very heavy at others. Were the Tragedy Plum a sure and regular bearer, we would not hesitate to name it as one of the best of the early Plums, in spite of the desirable quality of the Beauty, Formosa and Climax. However, owing to its excellent quality in spite of its being an alternative bearer, it is a profitable variety, and has been a great money maker in some localities. June 10th to July 1st.

Formosa. (Japanese.) One of Burbank's recent introductions. Ripening just in advance of Climax, the last half of Formosa will be picked with the first half of Climax. Fruit very large and heart shaped, averaging a little larger than Climax; color brilliant red; very handsome and showy; flesh yellow, fragrant and delicious flavor. They are regularly productive and have proven over the Climax a very valuable and one of the best early shipping varieties. Commands a premium on the Eastern market. We have had this variety under observation a number of years, and have planted very heavily to them in our own orchards. June 10th to June 25th.

Climax. (Japanese variety.) Large to very large; fruit heart shaped; color beautiful bright cherry red; flesh yellow and good flavor and delicate fragrance. On account of its earliness and fine quality one of the most profitable sorts of the season. Trees are strong and remarkably productive. Its earliness, large size, high color, good eating quality, fragrance and good shipping quality, make it one of the best Plums for distance shipping. A standard money maker. June 15th to July 3d.

California Blue. (Synonym Vacaville.) A seedling originating on the ranch of W. W. Smith at Vacaville, California. A fine, large, purple, oval Plum. Will pack 4-4 in a standard 5-pound basket. Flesh yellow, firm and of excellent flavor; pit small; ripening with the last of Tragedy they are the only Plum of the flavor and eating quality of the European varieties on the market during their season, being marketed with Climax, Santa Rosa and Burbank—all Japanese sorts. On that account there is a great demand for a Plum having the peculiarities of the European varieties, while its large size, fine appearance, keeping quality and excellent flavor make it a splendid seller on the Eastern market. This Plum has been in bearing on the ranches of W. W. Smith and Henry Bassford at Vacaville for a number of years, and on these ranches has been under our personal observation for four years, and has given evidence of being regularly productive, while its desirability as an extremely profitable market Plum has been well established. We have planted in our own orchards some 3,000 trees of this variety. June 20th to July 5th.

Santa Rosa. (Japanese.) Particularly valuable on account of its season of ripening. We have fruited them for six seasons. They ripen with the last half of Climax, a little in advance and with the Burbank, and on account of their firmness they have a longer ripening season and can be picked throughout the season of Burbanks or just in advance of Burbanks. Its large size, beautiful and most attractive appearance, its good shipping quality, its good eating quality and its productiveness make it a particularly valuable addition to shipping Plums. It is superior in size, appearance, color and flavor to the Burbank. The Plums are a deep, purple crimson, with pale yellow bloom; very large, conical, symmetrical, uniform in size; flesh yellow, with a shade of rosy scarlet near the

SPLENDID SUCCESS WITH WALNUTS—In answer to your letter, dated July 24th, in which you request me to express myself of what success I have had with the 520 Mayette Walnut trees received from you. I am certainly well satisfied, as every one is showing good growth and it has been a surprise to me that after planting them this spring most of them set from one to three nuts and a few of them are on the trees now, which will mature. It is certainly an indication that the trees are good bearers. I am well pleased.—Gustav Thomas, Arlington, Calif.

skin; fragrant; flavor rich, juicy, delicious and surpassingly exquisite. In our contemplated planting we include this variety in our list and we have planted to them extensively ourselves. June 25th to July 15th.

Buroank. (Japanese.) Large to very large and nearly globular; surface bright cherry red mottled with yellow; flesh yellow, sweet and with agreeable flavor; very firm and one of the best Plums for long distance shipment; a strong grower and prolific. Heretofore a very popular variety, but of late years, with the introduction of Santa Rosa and California Blue ripening at nearly the same time, the latter are more profitable planting. June 25th to July 15th.

Wickson. (Japanese.) Large, heart shaped; in ripening their color develops from a cherry red to a brilliant carot as full ripeness is attained; flesh amber colored, very juicy, and of an agreeable flavor. A very attractive Plum; an excellent shipper and a good seller. Tree a strong grower and a fairly good bearer. This variety always commands a good price. July 10th to 25th.

Gaviota. Ripening with the last half of Wickson and between Wickson and Kelsey. Unlike the Wickson it is a late bloomer and a more regular bearer. In size it is a little longer than the Wickson or Kelsey. The pit, however, is exceedingly small. The fruit when ripe is a deep red; flesh remarkably firm, honey yellow, fragrant, sweet and of excellent quality. One of the best midsummer shipping Plums, firmer than the Wickson and will ship to London. This Plum is an improvement over either Wickson or Kelsey. Has been in bearing for eight years at Vacaville; has made good and is very largely planted in that section. We are planting to them ourselves, and do not hesitate to recommend them. July 20th to August 1st.

Green Gage. (European.) Medium size, round; yellowish green; flesh pale green, melting, juicy, exceedingly rich and of excellent flavor. A good canner. July 10th to 20th.

Kelsey. (Japanese.) Very large, heart shaped; surface green, changing to a rich yellow tinged with red when fully ripe; flesh yellow, very firm and, when fully ripened, of good eating quality. The Kelsey usually finds a good market in the East, and sells at remunerative prices. It is a fairly regular bearer and profitable for planting. July 20th to August 10th.

Imperial Gage. (American Seedling.) Medium size, oval; surface greenish, tinged with yellow, deep white bloom; flesh greenish yellow; juicy, melting, rich and delicious; a perfect Freestone. Tree very vigorous and productive. A popular canning variety. July 20th to August 5th.

Diamond. (European.) Very large, oblong; dark purple, covered with a deep bloom; flesh yellow and when fully ripened of excellent eating quality. A splendid shipper and ripens between the going out of the Oriental varieties and the ripening of the later European varieties. It is the best Plum available at the time for shipment, and is more desired by the Eastern consumer than either Wickson or Kelsey, and reaches the market in advance of the Giant, Hungarian and Grand Duke. The demand for Plums at this time is always greater than the supply. The Diamond, ripening just at this time, has sold at a premium over those preceding and immediately following. Tree a vigorous grower and very productive. We have planted largely ourselves and do not hesitate to recommend them for extensive planting. July 15th to August 5th.

Jefferson. (New York.) Large, oval; yellow with reddish cheek; thin, white bloom; flesh rich, yellow, high flavored and luscious. Tree rather a slow grower, but productive. One of the best for canning and very desirable as a dessert Plum. August 1st to 15th.

Satsuma. (Japanese.) Syn. Blood Plum. Large, conical, nearly round; surface dark red under a thick bloom; flesh dark purplish, red, firm, juicy and of good flavor; pit very small. This Plum has a fair demand on the market; is much desired by many housekeepers for home preserving, and while a few trees would be desirable for an assortment, yet we do not recommend them for extensive planting. July 25th to August 5th.

Giant. (European.) Very large; oblong; color bright red covered with handsome lilac bloom; flesh yellow, sweet, juicy and of a pleasing flavor; Freestone and a splendid shipper. Ripens just in advance of Hungarian, but having a longer season it hangs and can, if desired, be harvested with Grand Duke. Tree a strong grower and very prolific bearer. We would, however, deem the Grand Duke or President a more desirable variety for commercial planting. August 1st to 15th.

Grand Duke. (European.) Very large, oval; surface dark, blackish purple, covered with a thick, deep blue bloom; flesh firm, greenish yellow, and of splendid eating quality. Ripens a little later than the Hungarian and on account of its large size, its very attractive appearance and its good eating quality, it commands very remunerative prices on all markets, supplying the demand for a blue Plum during the season of Hungarian and Giant Prune. Tree a strong grower and a regular bearer. We do not hesitate to recommend them for your planting. We have a large number in our own acreage. August 10th to 20th.

President. (European.) Originated on the ranch of H. A. Bassford of Vacaville. Very large, oval, dark purple covered with a deep bloom; flesh yellow, firm and of excellent eating quality. Very similar in appearance to Grand Duke; ripens immediately following the Grand Duke and is an equal in desirability of any of the best midsummer shipping varieties. Tree a strong grower and productive. This Plum will hang on the tree and remain firm. Can be picked either immediately following the Grand Duke or ten days or two weeks later. Can be marketed when there is no other Plum available, and when the demand for a good blue Plum is at its height, selling always at a premium. August 5th to 20th.

Hungarian. Syn. Gross; syn. Pond's Seedling. (European.) Very large, ovate; skin dark red; covered with a beautiful lilac bloom; flesh yellow, juicy and of excellent flavor; Freestone, and a good shipper. Its large size, excellent eating quality and showy appearance make it a great favorite. Its merits are well known. Really the best of European Plums, and a great money maker. August 5th to 20th.

German Prune. (European.) A medium large, long, dark oval variety; color dark purple, with a deep blue bloom; flesh greenish yellow and of agreeable flavor. A fairly productive and profitable variety. August 15th to September 1st.

Prunes

Prunes are a staple article of diet, not alone with the consuming population of the United States and Canada, but are used very largely in the export trade. Prices realized seasons 1914 and 1915, during the hard times, disturbed financial and trade conditions, have demonstrated, beyond a doubt, the stability of the Prune growing industry.

Prunes are to the California fruit grower what corn and hogs are to the Iowa farmer—a regular income producer, and now that they have become a staple article of diet in almost every household, they are bringing better prices each year. The consumption of California Prunes is increasing yearly. In the export trade they compete successfully with the European grown product at prices that net the California grower a profit.

When Prunes are a heavy yield, growers have been known to realize as much as \$1000 per acre from a season's crop, while an average net income per acre can be conservatively placed at \$175 to \$350 per acre. Growers in California have come to realize the desirability of planting Prunes as a safe and profitable investment, and as a result there has been a shortage in Prune trees each year, particularly on Myrobolan root.

There will again be a shortage in Prune trees on Myrobolan as well as on Peach and Almond root in the standard varieties. The demand is heavy. We have a fine block of Prunes in the French, Imperial, Robe de Sargent, Sugar and Standard on Myrobolan root.

Give us your order now while the varieties you want can be reserved for you at the special prices we are now making. We anticipate an advance of price on Prune trees later in the season.

Of the varieties listed, FRENCH are more largely used than any other, and can be named as the best, with IMPERIAL, ROBE DE SARGENT, SUGAR and STANDARD as next choice, and all good. In localities where IMPERIAL and ROBE DE SARGENT are regularly productive they are without a doubt the best.

We cut our buds of Prune of all varieties from parent trees of each individual kind that have been selected, not alone for productiveness, but for size and quality of fruit.

Sugar Prune. (European). Ripens a month earlier than French Prune, and this fact is a desirable feature. It averages a high percentage of sugar in the fresh fruit, and is larger in size than the French Prune. Tree is a vigorous and strong grower and enormous and regular cropper. Fruit large, oval; surface dark purple, covered with a thick, white bloom; flesh yellow, tender and rich. A valuable acquisition to drying varieties, and in great demand at remunerative prices as a shipping Plum on the Eastern markets. June 20th to August 5th.

Imperial. (European) (Imperial Epineuse). Fruit large; uniform size; surface violet purple with dark blue bloom; flesh greenish yellow and exceedingly sweet; pit small. It ripens earlier than the French Prune and is fully equal to French Prune in flavor and sweetness and surpasses same in size. On account of its large size dried it sells always at a long premium, and averages of 10¢ cents per pound on a crop of Imperial dried are not unusual. Trees strong and productive; inclined to alternate bearing in some districts, while in others it is regularly productive. In districts where it is regularly productive it is one of the most profitable. July 25th to August 5th.

Robe de Sargent. Large size; oval; skin deep purple and covered with a thick, blue bloom; flesh greenish yellow, sweet, well flavored, sugary, rich and delicious. Like Imperial, however, productive in some districts and inclined to alternate in places. In districts where regularly productive, on account of its large size and excellent quality as a Prune, it is equally as profitable as Imperial. August 5th to 20th.

Standard Prune. A combination of Tragedy and Sugar Prune, introduced five years ago by Mr. Burbank. Fruit very large, skin purple with heavy blue bloom. Flesh amber, fine grain and juicy; straight seed and a perfect Freestone. Dries quickly and is of better quality dried and of a larger size than the French, and its possibilities as a high grade Prune have been established. So far as observed, is regularly productive in some localities, but inclined to be an alternate bearer in others. August 20th to September 10th.

French Prune. Petite Prune d'Agen. (European.) Medium size to large; egg shaped; violet purplish; sweet, rich and sugary. Tree a strong grower and exceedingly productive. This is the standard variety for drying, and has been more extensively planted than any other, and has probably distributed more dollars among California growers than any other single individual variety of fruit. We propagate from parent trees having an exceptional record for productiveness and good sizes.

Conquest. A new stoneless Prune recently introduced by Mr. Burbank. It is very similar to its parent, the common French Prune, in form, size and color, and golden sweet, rich flesh. The stone, however, has been almost eliminated, with the exception of a very small speck. Ripens with the French Prune. Promises to be a valuable addition to the Prune family when the trial as to its productiveness has been demonstrated. August 25th to September 15th.

Silver. A seedling of Coe's Golden Drop, with which it is almost identical. Bears heavy in some districts, and dried, on account of its large size and transparency, sells at remunerative prices. August 25th to September 15th.

OUR TREES ARE THE BEST—The fruit trees I purchased from you have been eminently satisfactory. Every one lived and they are growing well. Have been purchasing some fruit trees each year from different nurseries, but I fully believe yours are better than any of the others I have bought so far. If I plant next season will undoubtedly purchase from you.—P. H. Woodside, Collinsville, Cal.

Pears

California Bartlett Pears ripen in advance of the Eastern and Northwestern grown Bartlett, and during their season have a monopoly of the markets of the United States and Canada. With the war ended and the Panama Canal trade routes established, this monopoly will extend to the European and South American markets as well. The California Bartlett attains a peculiar degree of perfection, making it a fruit distinct from any other Pear, and where consumed to be eaten out of hand, canned or dried, they enjoy a monopoly of all markets, and are as regularly profitable as the best of any fruit.

Under the adverse business conditions of 1915 Bartlett Pears, likewise all varieties of the standard Fall Pears, in spite of hard times, sold at remarkably remunerative prices and maintained their enviable record as an annual money maker for the California fruit grower. They rarely sell as low as \$25.00 per ton at the cannery, and even at this price a full bearing Pear orchard of Bartlett Pears, under normal conditions, will average a gross income of from \$175 to \$300 per acre. The average annual income from an acre of full bearing Bartlett Pears, grown under normal conditions, will range from \$250 to \$400, while growers have been known to realize as high as \$700 to \$800 per acre, where the location is particularly favorable.

Bartlett Pears produce a good income every year, and some years they are a gold mine.

On account of the Pear Blight in the Pear growing sections of the Eastern and Northwestern States, Pears are not being planted, and many of the Pear orchards are being taken up. For that reason California will enjoy a monopoly in the production of this fruit; likewise of the standard varieties of Fall Pears. The consumption of this fine fruit is growing, and the possibilities of its expansion are unlimited. In California, on the coast valleys, likewise the interior foothills and lower mountain locations, Pears are practically immune from Pear Blight, while even on the interior valley locations Pear Blight can be readily controlled.

Bartlett is the king of Pears, and should be more largely planted than any other variety. Bartlett being pre-eminently the best. They can be successfully grown over a very wide range, and there is no fruit offering a safer or more profitable investment. On very early locations a block of Wilder or Lawson Pear in your Pear assortment will be very profitable, while an assortment of the standard fall varieties, such as Beurre d'Anjou, Beurre Bosc, Winter Nelis, Comice, Beurre Hardy and Beurre Clairgeau, will diversify your crop, and are very profitable planting also.

Fall Pears enjoy a wide range of distribution at profitable prices, and with the opening of the canal trade routes, Fall Pears in particular will be in great demand for the export trade. They will safely average an income of from \$125 to \$400 per acre.

We have a fine lot of thrifty, hardy, well rooted Pear trees growing in our nurseries, and can care for all orders on both French Pear and Japanese Pear root.

Bartlett. The King of Pears; the best for Eastern as well as local markets; the best for canning and the best for drying. The merits of this fruit are well known. Scarcely any other variety of fruit is making as much money for growers as Bartlett Pears, and with Pear Blight under control and little to fear from this source, we do not hesitate to recommend them for extensive planting. They will continue to be in the future, as they have been in the past, a source of great profit to fruit growers. The tree is a strong grower and prolific; fruit large, smooth, clear yellow, sometimes with delicate blush; flesh white, fine grain, juicy, buttery and delicious. Their season extends from July 1st to September 15th, according to location.

Comet. Large to medium size. When ripened, bright crimson on yellow background; flesh rich and sweet; a good shipper; fairly productive, and on account of its early ripening, is a very profitable commercial variety. Season extends from June 3d to July 15th.

Lawson. Large to medium size. When ripened, bright crimson on yellow background; flesh rich and sweet; a good shipper; fairly productive, and on account of its early ripening, is a very profitable commercial variety. June 25th to July 10th.

Wilder. The best early Pear; large to medium; flesh firm, rich and sweet. When ripened, is a dark crimson on yellow background. A good shipper, productive, and on account of its early ripening is very profitable and worthy of extensive planting, particularly in early districts. June 25th to July 10th.

Beurre Clairgeau. Large pyriform. When ripened, color yellow, covered with russet dots; flesh yellowish, sweet, juicy, and slightly granular; splendid for dessert. Tree very hardy; very prolific and a regular bearer. This variety does not compare in quality with the Bartlett, yet, owing to its being a sure bearer, and owing to the fact that it immediately follows the Bartlett and the demand for Pears is still at its height, they sell at remunerative prices. Its season extends from August 15th to September 15th.

Beurre Bosc. A large, beautiful russet sort; long neck; melting, rich flavor; very productive. A splendid Fall fruit used in the export trade. Said to possess virtue as a pollenizer of other varieties. September 15th to October 15th.

Beurre Hardy. Large, long obovate, sometimes pyriform; skin greenish with thin, brown russet; flesh white and of a rich, slightly sub-acid flavor; tree a strong grower and productive. September 5th to October 1st.

Doyenne de Comice. Large, roundish pyriform; greenish yellow; ripening, becomes a fine yellow shaded crimson, slightly marked with russet spots; flesh white, fine, melting, aromatic; a French Pear of quite recent introduction; has been successfully grown by the

A. Bloch Fruit Co. of Santa Clara, and also in some sections of the Pacific Northwest. Its large size, good keeping quality, fine grain and exquisite flavor, make it a great favorite on the Eastern market for the holiday trade. Tree vigorous and in some localities regularly productive, in others inclined to alternate bearing. October 15th to November 15th.

Beurre d'Anjou. Large, pyriform; skin greenish, sprinkled with russet, sometimes shaded with full crimson; flesh white, melting, juicy and of the finest flavor. This variety is profitably grown in sections of Oregon and Washington and is held in equal esteem with the Comice, sales on the Eastern market averaging from \$2.50 to \$4.50 per box. In many localities more regularly productive than the Comice, and with the opening of the Canal will, with the Comice, find an unlimited consumption in the export trade. October 15th to November 15th.

Winter Nelis. Medium, roundish, obovate; yellowish green dotted with gray russet, and a good deal covered with russet; flesh yellowish white; fine grained, but watery, very melting and full of rich, sweet, aromatic juice. In eating quality equal to the Bartlett. As in the Anjou and Comice, with the opening of the Canal this Pear will find world-wide distribution. We propagate from a strain of Winter Nelis producing exceptionally large fruit. Many of the California grown Winter Nelis are of small size, while the particular strain which we propagate will average medium large to large, and is a Pear of much better quality than the Winter Nelis commonly employed in California. October 15th to November 15th.

Glout Morceau. Large; skin greenish yellow; flesh white, fine grain and, when ripened, melting; rich and sweet. A good variety either for home orchard or market, though not very extensively grown. October to February.

Easter Beurre. Very handsome; pumpkin shaped; flesh white, and, when ripened, fine grain, juicy and rich flavor; will keep until March; most delicious for dessert and, on account of its long keeping quality a valuable market sort, though not very extensively grown. Tree a rapid grower and a very abundant bearer. October to March.

Olives

OLIVES ON PICHOLINE ROOT.

When you buy an Olive tree it will pay you to get the best—never the cheapest—as the best are always cheapest in the end. Olives in California are usually grown from cuttings, because that is the easiest and least expensive way. HOWEVER, IT HAS BEEN DEMONSTRATED THAT AN OLIVE WORKED ON PICHOLINE ROOT PRODUCES A STRONGER TREE AND A BETTER ROOT SYSTEM THAN A TREE GROWN FROM A CUTTING. When you plant a French Prune, you want it worked either on Myrobalan Seedling, Bitter Almond or a natural Peach Seedling root, but you wouldn't have a French Prune grown from a cutting or worked on a French Prune Seedling.

We are practically the only nurserymen in the State propagating Olives on the Picholine root—and between an Olive grown on Picholine root and one grown from a cutting, price should not be a consideration. We have a limited number of trees of two and three season's growth of Mission Olive worked on the Picholine root, well rooted and of good caliper—and if you are planting Olives it will pay you well to contract from this lot.

OLIVES GROWN FROM CUTTINGS.

For those growers who desire Olives grown from cuttings we can supply a fine lot of strong, well rooted trees of good caliper in the standard varieties.

POSSIBILITIES OF OLIVE GROWING IN CALIFORNIA.

Olives cannot be successfully grown everywhere in California, but in those localities adapted to their culture they are as profitable as the best of other fruits, averaging regularly an income of from \$200 to \$400 per acre, and for the future a California grower who has a block of Olive Trees well cared for and planted in a locality adapted to their production will have for himself and his posterity an income as safe and sure as if he owned a block of Standard Oil stock.

The California Olive can be pickled ripe and reshipped without becoming soft. The European Olive cannot be pickled ripe, but must be pickled green in order that it may be shipped to the consumer. For this reason the European grown Olive is an entirely different product from the California ripe Olive, and in addition to the markets of North America, the California ripe Olive is practically without a competitor on the European market as well as on other markets of the world.

The supply of California ripe Olives can in no way keep pace with this increasing demand. This situation is being multiplied by reason of the fact that the large packing and canning establishments, such as Heinz, Libby-McNeil and Armour, are now making a specialty of pickling the California Olive, and they are employing their vast selling facilities in its distribution. An Olive tree will endure for generations, and there is no planting that will afford you a surer income during your lifetime. Of the varieties planted, the Mission is pre-eminently the best, and 90 per cent of the Olive planting is to the Mission, with Manzanillo as second choice.

Manzanillo. Very large; of a deep, black color, dotted with white specks when fully ripe. Makes fine pickles of the very best quality and produces oil of high grade. Tree hardy and a prolific and regular bearer.

ALL GROWING—The French Prunes I purchased of you last year, I am pleased to report, are doing fine. I planted five hundred forty trees, and I have five hundred forty growing, and they have made from two to nine feet growth—planted last March.—W. H. Oakes, Folsom, Cal.

Mission. This old standard sort, introduced by the Spanish Padres, is more extensively cultivated than the sum of all other varieties. Makes a fine, firm pickle of the very best commercial quality, and produces oil of high grade. Tree rapid grower; adapts itself to a wide range of localities and is a regular and almost constant bearer. Ninety per cent of the Olive planting is to this variety.

Sevillano (Queen Olive). When ripe, of bluish black color; extra large; makes a splendid pickle; tree of rapid growth, but in most localities is a shy bearer. A good variety for home orchard pickling.

Walnuts

Walnut growing in Northern California has been overlooked by the majority of planters. This, on account of the shy bearing and the tendency to blight of the Santa Barbara Softshell and Old English Walnut varieties, although in some localities even these have been regularly productive. Recently, however, with the introduction of the later blooming Franquette and Mayette of the French varieties, experience has shown that in many localities in Northern California—where the depth of soil and drainage are favorable to Walnut culture—Walnuts can be successfully and in many cases more profitably grown than in the famous Walnut growing sections of Santa Barbara County in the south. In many localities of the north there are now groves of Franquette and Mayette that are full bearing, regularly productive and very profitable.

Walnuts will endure for generations and, like Olives, continually increase in productiveness. A fair income from a Walnut grove in full bearing is from \$200 to \$350 per acre.

Of the two French varieties named, Franquette and Mayette, the Mayette is the best. In these varieties we propagate from a strain of Mayette originated by R. Wiltz, of near San Jose. Mr. Wiltz has a large acreage of bearing Walnuts, including Franquette, Eureka, Concord, in addition to a large block of the Wiltz strain of Mayette, and among these the Wiltz strain of Mayette has for a number of years been the more regularly productive, a better grade nut, more immune from blight than any other variety. And where the Wiltz strain of Mayette has been planted in other localities, they have invariably maintained this record.

Walnuts should be planted only on the California Black Walnut root, and we have a fine lot of trees of Franquette, Wiltz strain Mayette, and other varieties grafted on this root.

OUR SCIONS OF WALNUT ARE CUT BY R. WILTZ, THE PIONEER WALNUT EXPERT OF CALIFORNIA, AND FROM TREES THAT ARE NOT ALONE OF ABSOLUTELY TRUE TYPE, BUT FROM TREES OF THE TRUE TYPE THAT HAVE BEEN SELECTED FOR PRODUCTIVENESS AND QUALITY OF FRUIT—THE HIGHEST PEDIGREE THAT CAN BE GIVEN A WALNUT—A VERY IMPORTANT FEATURE, AGAINST WHICH PRICE IS NO CONSIDERATION.

Franquette. The intrinsic value of this French variety is just beginning to dawn on the nut growers of California. It is large, elongated, oval; kernel full, sweet, of rich, nutty flavor. The nuts command very high prices. A particularly desirable feature of this variety, and the Mayette is the fact that it is a late bloomer, buds beginning to swell about the beginning of April.

San Jose Mayette of the Wiltz Strain. The best late blooming Walnut of the true Mayette type which has been introduced is the San Jose Mayette, so named by Mr. Rudolph Wiltz, a pioneer Walnut grower of San Jose. He introduced this nut twelve years ago after having tested its good qualities a number of seasons, compared to Franquette and other varieties. The original grafted tree has never failed to produce a good crop of nuts for the past fifteen years. This nut has been propagated on a number of trees from the original parent, on the ranch of Mr. Wiltz, and has been producing side by side for a number of years with Franquette, Concord, Eureka and other varieties, and has proven its superiority over all these in its greater productiveness, freedom from blight, and better quality of nut. Tree and nuts are immune from blight; not subject to sunburn, and on that account for the hot interior valleys of California are preferable to any other variety. They can be harvested two weeks in advance of Franquette, and while the trees are still in foliage, which is a great advantage. The Wiltz Mayette is of medium growth, which is a desirable feature for pruning and gathering the nuts. The nut hulls clean and free from the tree. The nuts are of the best commercial size, with a smooth, high-colored, thin shell, needing no bleaching whatever. The inside is as fine as the outside, the meat filling the shell well and being invested with a pellicle of very light color. Kernels sweet and of real mild, nutty flavor. Our scions are cut from the parent trees by Mr. Wiltz, and for the purpose of insuring a true strain of this variety, we are having our trees grown and propagated by Mr. Wiltz under his personal care and supervision. Blooms April 15th.

Santa Barbara Softshell. Nut large; shell thin; kernel white, full and sweet. A favorite variety in the southern part of the State.

California Black. An exceedingly rapid grower; stands transplanting, and is fine stock for budding and grafting. The nuts are of medium size, very hard shell and kernel rich and oily.

Pecans

Stewart. A standard for commercial orchards. Has all the points for a profitable Pecan, large size and desirable shape; fine appearance; always well filled and meat of good flavor. A fine ornamental tree for the home, as well as for commercial purposes.

Quinces

The Quince is adapted to a wide area. They can be planted on ground too wet for Pear, Apple or Myrobalan root; and they also thrive well on well-drained locations. Ripening in California in advance of the Eastern Quince, they sell on the Eastern market during the height of the home canning and preserving season, and at that time, more than any other, are in great demand for that purpose by the housekeeper.

The Quince is in great demand, is profitable and has been much overlooked by planters. Pineapple and Van Deman comprise the best varieties, and are superior to the older and more common later sorts. Of these two, Pineapple is the best from the fact that it ripens in advance of any other—can be picked in most locations from September 1st to 15th—is very productive and best in quality. Quinces will average regularly from \$125 to \$200 per acre.

Pineapple. One of Burbank's productions. The name comes from the flavor, which is suggestive of Pineapple. They will cook as tender as the best cooking apple, possessing an exquisite flavor not equaled by any other Quince. Very large size; very hardy; bear young and regularly; ripen September 1st, and on account of their ripening in advance of any other Quince, and at a time when every housekeeper is in the midst of the season's home canning operations, they are subject to a demand on every market that no later ripening Quince enjoys. On the Eastern markets they have averaged, for a number of seasons, from \$2.00 to \$2.25 per box.

Smyrna. Extremely large, elongated, lemon yellow; cooks tender and has a fine flavor; long keeper; tree strong grower, very prolific, ripening with Orange. One of the best.

Van Deman. Originated by Luther Burbank. A strong grower, the hardiest, surest and youngest bearer we know, and succeeds farther north than any other variety. Will produce more big, fine flavored, golden fruit than any other Quince. Delicious for preserves, jellies or quince syrup. Ripens through a long season and keeps well. We recommend it as one of the best.

Persimmons

A Japanese fruit that is slowly but surely working its way into popularity. The growing of Persimmons, both for market and for home consumption, is not an experiment as far as the fruit is concerned, but as yet the majority of fruit-eating people have not learned to recognize the good quality of this most valuable luxury. On the markets where it has been offered for several years past, consumers have learned to know its value, and there is an increasing demand for it at remunerative prices. For a number of years it has found ready sale at high prices in the Pacific Coast markets; shipments have been made to England with good results, while those made to Chicago and New York have proven it a valuable acquisition for Eastern shipment.

There are a great many varieties of this fruit. One of our veteran orchardists, Ira Avery, of Newcastle, has fruited a great many of them, and our list comprises those that Mr. Avery has proven to be the best.

Hyakume. Early; large to very large; somewhat flattened at both ends; generally slightly depressed at the point opposite the stem; skin light bluish-yellow; flesh dark brown, sweet, crisp and meaty, non-astringent; good while still hard. Tree of good growth and a free bearer.

Hachiya. Very large, oblong, conical, with short point; very showy; skin dark, bright red with occasional dark spots or blotches and rings at the apex; flesh deep yellow; sometimes having occasional dark streaks, with seed. Astringent until ripe, then very fine. Large and handsome fruit. Tree vigorous, shapely and prolific.

Tane-Nashi. Large to very large, roundish, conical, pointed, very smooth and symmetrical; skin light yellow, changing to a bright red at full maturity; flesh yellow and seedless; quality very fine; perhaps the most highly esteemed of the light-fleshed kinds. Tree is vigorous and bears well, though not as prolific as some.

Mammoth Goshio. Highly recommended from Japan. A new production, and said to be the best. An improvement on Goshio, in many respects similar, but as its name implies, much larger than Goshio, averaging to larger size than any other variety.

Figs

Figs thrive well in any soil and under any conditions which favor common orchard trees. The range of soil on which they grow well is very wide, and wherever the summer temperature is high enough to ripen the fruit and the winter temperature high enough to prevent the killing of the tree, you are perfectly safe in planting Figs for the general market or family use. In growing Figs for drying, however, great care must be taken in the selection of soils most suitable.

Figs are becoming a staple article of diet in the dried fruit. The demand for them is in its infancy, and with the whole of North America as a market for the California-grown product, Fig growing is, and will continue to be, as stable and profitable for the California grower as the best of any other fruit. On account of their wide range of adaptability and productiveness, they are a safe investment.

White Adriatic. Fruit very large; skin greenish yellow and thin as tissue paper; pulp is of a carnation color, exceedingly aromatic.

VIGOROUS GROWTH—Expect to place an order soon for some prune trees, but don't know yet how many I want. The seven hundred trees I purchased from you last year have made a fine, vigorous growth—the French especially—some of them over four feet. I have only lost two.—F. W. Radtkey, Cloverdale, Cal.

Calimyrna. The genuine Smyrna Fig, large to very large; skin lemon yellow; pulp reddish amber, sometimes pale amber turning to dark amber just before falling. Seeds large, yellow, fertile, overspread with a clear, white syrup, giving the fruit a richness and meatiness unsurpassed by any other Fig. Tree of spreading habit, leaves medium to large and five lobed. Dries readily and with less trouble and expense than any other Fig. Should be planted in conjunction with the Capri Fig, one tree of Capri to every twenty-five of Calimyrna.

Mission. Large; black; more largely grown in California than any other Fig. Tree a rapid grower and an early and heavy bearer, while the dried product is in great demand at remunerative prices, and this old standby is one of the best and most reliable for profit.

Table Grapes

California Table Grapes—being of the Southern European varieties, which can be grown in this country only in California—are so unlike the American varieties grown in other sections of the country that they are a fruit distinct in themselves. They are superior in every way in quality to the Eastern grown American varieties. They are great favorites with the consumer, and are sold successfully in competition with the Eastern crop in every market of the United States.

Being a Fall fruit, Grapes are made to compete with the flood of Apples marketed during this season, and on that account do not command the high prices, nor realize as large returns per acre as other fruits named in this booklet, which, during their season, are marketed only from California. However, in many localities, Table Grapes are and will continue to be profitable to the grower, and this is particularly true of Malaga, Tokay, Cornichon and Emperor.

The Thompson Seedless, on account of their great productiveness and the great demand for them dried as a seedless raisin, are more profitable than any other variety of the Grape. They are grown only in California as a seedless raisin, and their planting is without doubt a safe investment.

European Varieties

Fontainbleau. Bunches large and compact; berries medium size and round, skin thin and greenish yellow; pulp juicy and sweet; of fair shipping quality and valuable mainly as the earliest shipping Grape. July 31st to August 15th.

Thompson Seedless. Bunches very large and compact; berries greenish yellow; firm, oval and seedless; pulp crisp, and of very sweet, delicious natural flavor; a good shipper and the best early variety. More valuable for drying than any other variety, and on account of its productiveness, its early ripening, and freedom from rain damage while being cured, and the great demand for a seedless raisin of higher quality at remunerative prices, this is one of the best money makers for the California grower, and their consumption is capable of very large expansion. Ripens August 5th to 20th.

Black Prince. The earliest good, black Grape; bunches long and tapering; color, uniformly black, with handsome, deep blue bloom; berries medium to large, ovate, very juicy and sweet. A good shipper; very attractive and of excellent eating quality. A good bearer. August 12th to September 5th.

Rose Peru. Bunches large, shouldered and loose. Berry round, large, with firm, sweet, crackling flesh; color black, tinged with yellowish green. A good early Grape. A very profitable sort for planting. August 12th to September 5th.

Blue Malvoise. Bunches, branches large and loose. Berries medium size, reddish black, with blue bloom; pulp juicy, sweet and of excellent flavor. An excellent Grape, but inclined to bear light in certain localities. August 18th to September 1st.

Malaga. Bunches very large and compact; berries very large, oval, yellowish green, with white bloom; thick skinned; flesh very firm, sweet, crisp and of exquisite, natural flavor. A very desirable variety for Eastern shipment, and has rapidly displaced the Muscat on the Eastern markets. A good shipper and sells at remunerative prices. A good bearer. August 18th to September 5th.

Muscat. Bunches long and loose. Berry oval, yellowish green and thick skinned; pulp very sweet, delicious and with a decided Muscat flavor. For Eastern shipment we prefer the Malaga; for raisins, of course, the Muscat. August 20th to September 15th.

Purple Damascus. Bunches large and loose. Fruit very large, oval and of deep purple color; flesh meaty and juicy. A very attractive Grape and a good shipper. August 25th to September 10th.

Seedless Sultana. Bunches compact, tapering; berries large, long and conical; skin thin, green, semi-transparent, becoming yellow as it ripens; pulp tender and seedless.

Tokay. Bunches large and compact; berries very large, oblong, red, covered with lilac bloom; flesh firm, crackling and sweet. Used more largely as a table Grape than any other variety, and is the standard for profit. August 18th to November 1st.

Black Morocco. Bunches large; berries very large and oval, with thick skin; color, copper green to very black; flesh firm, juicy and sweet; a good bearer. September 3d to October 15th.

Cornichon. Bunches long and loose; berries black, with deep blue bloom; long, oval, with thick skin; flesh firm, crackling and of fine flavor. A very desirable table Grape, and a good shipper. This variety is gaining favor each year, and we recommend it for extensive planting. September 6th to November 1st.

Black Ferrera. Bunches large and loosely set; berries large and oval; black, with violet bloom; thin skinned; flesh sweet and crackling. A good shipper and a good bearer. A delicious table Grape, and a valuable market variety. September 5th to October 15th.

Emperor. Bunches long and loose. Berries large and oblong; color deep rose to nearly black, with faint bloom. Its firmness, rich color and excellent eating quality cause it to be in great demand. A very desirable market variety.

American Varieties

Catawba. An old favorite red Grape, but requires exceptionally favored situations and a warm season; in the North it ripens too late for proper maturity; not always dependable. Grown commercially in the Chautauqua grape belt of New York.

Concord. Black; the old standby; healthy, hardy, vigorous, productive; succeeds in localities where others fail; ships well, sells well, and is of good quality. The Grape for the millions and a monument to the originator, Mr. Ephraim Bull.

Worden. Black; bunch large and compact; a proven, tested, most dependable and valuable Grape. Commercially profitable, and for the family vineyard should be given preference over Concord, as it is of higher quality and handsomer—a richer, glossier black—and is hardier. Has a habit of bearing its best crops in the off seasons for Concord.

Isabella. A strong growing variety, especially adapted for arbors; bunches good size, somewhat loose; berries quite large, oval, black, covered with a blue bloom; juicy, sweet and rich, with a slight musky aroma.

Niagara. Bunch large, uniform, very compact; berry large, mostly round, light greenish white, slightly ambered in the sun; peculiar flavor and aroma; enormously productive.

Oranges, Lemons and Pomelo

Nothing will add so much to the attractiveness and value of your fruit farm or home, nor give you more pleasure than a block of well kept citrus trees. Profitable also for local market, though for extensive commercial planting we do not advocate the planting of the Orange, Lemon or Pomelo in that part of Northern California lying north of Fresno County, though every fruit farm and every home garden should have from a few to several dozen citrus trees in their assortment, and, as stated, nothing that you can plant will add so much to the value and attractiveness of your home.

Oranges

Washington Navel. The most popular of any Orange grown in California. Very large, solid and heavy; skin smooth and of very fine texture; very juicy; highly flavored, with melting pulp, almost seedless; tree very hardy and a prolific bearer.

Ruby Blood. Medium size; nearly round; thin skin, but very tough; pulp melting, rich and juicy. When ripe it usually becomes streaked and mottled with blood red, showing through the peel in a reddish blush. One of the best Blood Oranges.

Valencia Late. Fruit medium size, oval, solid, heavy; skin very thin and of a strong texture; flesh juicy, rich color, fine grain, firm, crisp and of excellent flavor. Tree strong and of vigorous growth; season latest, being in prime condition after other varieties become stale, and maintaining a fine quality throughout the summer.

Tangerine. Fruit flat; small to medium; skin separates freely from the flesh; juicy, aromatic and rich; color deep red; belongs to the Mandarin family. Ripens from December to February.

Lemons

Eureka. Medium size; sweet rind; a good keeper and very popular.

Lisbon. Fruit medium size; fine grain; sweet rind; very strong acid; very few seeds, and a good keeper. Can be picked any time of the year. Tree is a strong grower and prolific.

Villa Franc. Medium size; considered to be the best of all Lemons grown; fruit oblong, slightly pointed at the bloom end; rind thin, without any trace of bitterness; acid strong, juicy and nearly seedless, tree thornless, branches spreading; will stand a lower temperature than any other variety.

Pomelo or Grape Fruit

Triumph. Full medium size; peel smooth, clear and fine grained; juicy and well flavored; very few seeds; tree bears when young.

Marsh's Seedless. Medium size; thin rind; almost absolutely seedless; meat dark and rich; a good keeper, and being seedless makes a very popular variety.

Berries

Raspberries

Hansel. Medium to large; color bright crimson, and of excellent flavor; firm, and for distant shipment is one of the best and the earliest. May 22d to June 15th.

King. Of good size; color bright scarlet; a fine eating quality and an excellent shipper. June 1st to 28th.

Cuthbert. Dark red berry of delicious Raspberry flavor. A good shipper, and one of the best for market. June 10th to July 1st.

Strawberries

Dollar. This berry combines every qualification of a good marketable variety. It will ship to points three days' distant. Large, highly colored, symmetrical. No other berry known can be so satisfactorily shipped to distant localities as this, and no other berry is more prolific or better adapted to the home garden. First crop April 28th to June 5th; second crop, June 11th to October 1st.

SPLENDID GROWTH—In answer to your letter I will state the three hundred trees I bought of you have done remarkably well, and have made splendid growth, and I am very pleased, indeed, with them. I will be wanting more trees in the spring, and will surely get them from you.—H. Mercer, Calpella, Calif.

Blackberries

Lucretia Dewberry. The earliest and best Blackberry; soft, sweet and luscious throughout; the best for putting up; very prolific. June 1st to July 5th.

Lawton Blackberry. Large black and of excellent eating quality. One of the best late Blackberries. June 25th to August 15th.

Loganberries

One-half Raspberry and one-half Blackberry. They are as large as the largest Blackberry; of the same form and shape, but of a bright red color, and contain both the flavor of the Raspberry and Blackberry, having a very vinous flavor not found in any other fruit. Raw, when fully ripe, it is excellent for the table; also excellent stewed, and for jelly and jam it has no equal. May 20th to June 19th.

Phenomenal Berries

All that can be said of the Loganberry is applicable to this berry, excepting that the Phenomenal is of larger size and of superior quality than the Logan. May 20th to June 19th.

Gooseberries

Downing. Fruit good size; oval; color whitish-green; skin smooth; flesh soft, juicy and good; an upright and vigorous grower.

Oregon Champion. Berries very large, brownish red; very sweet and fine for table use and pies. A very profitable bearer.

Currants

Cherry. Very large; deep red; fine for preserving, and a valuable market variety.

Fay's Prolific. A new Currant which has well sustained the claims of its disseminator. It is larger than the Cherry, has less acid, and is much more prolific.

White Grape. Large, yellowish white; valuable for the table.

Bergtholdt's Special Prize Offers for the Home Orchard

TERMS: CASH WITH ORDER.

Prices quoted on these combination offers are delivered to you ALL CHARGES PAID. They effect you a saving in cost and at the special price named on each offer, terms are net cash with order.

These special prize offers give you an exceptional opportunity to supply yourself with the very best, hardiest, well rooted trees for your home orchard or garden, and at a saving in cost.

FRUIT TREES. Under this head you can order one or more, of your selection or our own, of Apple, Clingstone and Freestone Peach, Cherry, Pear, Apricot, Prune, Plum, Almond, Persimmon, Fig, Quince, and on any root adapted to your location.

All trees quoted under this head are very best grade, 4 to 6 feet trees, thrifty and well rooted.

CITRUS TREES. Your choice, or ours, of any of the following varieties:

Orange—Washington Navel, Valencia Late, Tangerine, Oonshiu, Gold Nugget Navel, Navelencia, Ruby Blood.

Lemon—Villa Franc, Eureka, Lisbon.

Pomelo—Marsh Seedless, Triumph.

All Citrus Trees quoted are of best grade $\frac{1}{8}$ to $\frac{5}{8}$ -inch caliper, and in the naked root.

Citrus Trees, with careful handling, can be as successfully transplanted in the naked root as balled. If desired balled, add 25 cents for each Citrus Tree. The additional cost of the balled Citrus Tree being the added cost of freight on a balled tree to your station.

COMES BACK FOR MORE—The trees I bought from you two years ago are doing fine, and I only lost two out of the 500. I would have ordered again last year, but financial conditions were such that I could not, but I felt I must order at least a few this year, so am enclosing order for another 500.—John Anderson, Windsor, Cal.

WALNUT. All grafted on Black Walnut root, best grade 4 to 6 feet well rooted trees, your selection or our own, of the following varieties: Franquette, Wiltz strain Mayette, Placentia Perfection, Santa Barbara Softshell—all pedigreed stock.

GRAPES. No. 1 rooted vines, your selection of varieties, or our own selection.

SELECTION OF VARIETIES. Make your selection from the descriptions in the preceding pages of this Catalogue, or, if you will advise us as to your preference, and the kind, we will exercise our judgment and experience as fruit growers in giving you the best selection of varieties for your needs.

OFFER NO. 1.

\$3.95 Delivered. All Charges Paid.
1 Walnut 9 Fruit Trees

OFFER NO. 2.

\$5.20 Delivered. All Charges Paid.
7 Fruit Trees 2 Citrus Trees
1 Grafted Walnut on Black 4 Grapes

OFFER NO. 3.

\$6.25 Delivered. All Charges Paid.
3 Citrus Trees 6 Fruit Trees
2 Grafted Walnut

OFFER NO. 4.

\$8.35 Delivered. All Charges Paid.
10 Fruit Trees 6 Cuthbert Raspberries
1 Grafted Walnut 6 Lucretia Dewberries
2 Citrus Trees 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Lawton Blackberries 6 Currants

OFFER NO. 5.

\$9.60 Delivered. All Charges Paid.
8 Fruit Trees 6 Lucretia Dewberries
5 Citrus Trees 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Cuthbert Raspberries 6 Currants
6 Lawton Blackberries

OFFER NO. 6.

\$5.25 Delivered. All Charges Paid.
4 Fruit Trees 6 Lucretia Dewberries
2 Citrus Trees 6 Phenomenal Berries
6 Cuthbert Raspberries 6 Gooseberries
6 Lawton Blackberries 6 Currants

OFFER NO. 7.

\$5.75 Delivered. All Charges Paid.
6 Fruit Trees 1 Grafted Walnut
2 Citrus Trees 1 Grafted Stewart Pecan

OFFER NO. 8.

\$5.65 Delivered. All Charges Paid.
8 Fruit Trees 6 Lucretia Dewberries
6 Grapes 6 Phenomenal Berries
6 Cuthbert Raspberries 6 Gooseberries
6 Lawton Blackberries 6 Currants

OFFER NO. 9.

\$6.25 Delivered. All Charges Paid.
10 Fruit Trees 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Lawton Blackberries 6 Currants
6 Lucretia Dewberries 6 Cuthbert Raspberries

OFFER NO. 10.

\$5.10 Delivered. All Charges Paid.
.... 15 Fruit Trees

OFFER NO. 11.

\$7.20 Delivered. All Charges Paid.
13 Fruit Trees 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Lawton Blackberries 6 Currants
6 Lucretia Dewberries 6 Cuthbert Raspberries

OFFER NO. 12.

\$3.60 Delivered. All Charges Paid.
15 Fruit Trees 2 Citrus Trees
6 Grapes 2 Grafted Walnuts

OFFER NO. 13.

\$8.20 Delivered. All Charges Paid.
10 Fruit Trees 2 Grafted Walnut
2 Citrus Trees 1 Grafted Pecan
6 Grapes

OFFER NO. 14.

\$12.75 Delivered. All Charges Paid.
15 Fruit Trees 6 Lawton Blackberries
5 Citrus Trees 6 Lucretia Dewberries
2 Grafted Walnut 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Cuthbert Raspberries 6 Currants

OFFER NO. 15.

\$13.05 Delivered. All Charges Paid.
15 Fruit Trees 2 Walnuts
5 Citrus Trees 2 Grafted Pecans
10 Grapes

OFFER NO. 16.

\$7.90 Delivered. All Charges Paid.
18 Fruit Trees 2 Grafted Walnuts
6 Grapes

OFFER NO. 17.

\$16.25 Delivered. All Charges Paid.
20 Fruit Trees 6 Lawton Blackberries
5 Citrus Trees 6 Lucretia Dewberries
2 Grafted Walnuts 6 Phenomenal Berries
6 Grapes 6 Gooseberries
6 Cuthbert Raspberries 6 Currants
1 Grafted Stewart Pecan

OFFER NO. 18.

\$6.35 Delivered. All Charges Paid.
20 Fruit Trees

OFFER NO. 19.

\$7.05 Delivered. All Charges Paid.
20 Fruit Trees 12 Grapes

OFFER NO. 20.

\$10.25 Delivered. All Charges Paid.
20 Fruit Trees 2 Grafted Walnuts
2 Citrus Trees 6 Grapes

OFFER NO. 21.

\$9.00 Delivered. All Charges Paid
20 Fruit Trees 6 Phenomenal Berries
6 Grapes 6 Cuthbert Raspberries
6 Lawton Blackberries 6 Gooseberries
6 Lucretia Dewberries 6 Currants

OFFER NO. 22.

\$20.70 Delivered. All Charges Paid.
20 Fruit Trees 12 Lucretia Dewberries
10 Citrus Trees 12 Phenomenal Berries
4 Walnuts 12 Cuthbert Raspberries
12 Grapes 6 Gooseberries
12 Lawton Blackberries 12 Currants

OFFER NO. 23.

\$14.75 Delivered. All Charges Paid.
20 Fruit Trees 10 Citrus Trees

OFFER NO. 24.

\$17.85 Delivered. All Charges Paid.
20 Fruit Trees 4 Grafted Walnuts
10 Citrus Trees 1 Grafted Pecan

OFFER NO. 25.

\$8.70 Delivered. All Charges Paid.
25 Fruit Trees 12 Grapes

OFFER NO. 26.

\$12.85 Delivered. All Charges Paid.
25 Fruit Trees 12 Lucretia Dewberries
12 Grapes 12 Phenomenal Berries
12 Cuthbert Raspberries 6 Gooseberries
12 Lawton Blackberries 12 Currants

OFFER NO. 27.

\$11.65 Delivered. All Charges Paid.
5 Citrus Trees 25 Fruit Trees

OFFER NO. 28.

\$18.65 Delivered. All Charges Paid.
25 Fruit Trees 2 Grafted Pecans
2 Grafted Walnuts 5 Citrus Trees
20 Grapes

OFFER NO. 29.

\$9.40 Delivered. All Charges Paid.
30 Fruit Trees

OFFER NO. 30.

\$13.15 Delivered. All Charges Paid.
30 Fruit Trees 2 Grafted Walnuts
2 Citrus Trees 12 Grapes

OFFER NO. 31.

\$19.25 Delivered. All Charges Paid.
30 Fruit Trees 12 Lawton Blackberries
2 Grafted Walnuts 12 Lucretia Dewberries
2 Citrus Trees 12 Phenomenal Berries
12 Grapes 6 Gooseberries
12 Cuthbert Raspberries 12 Currants
2 Grafted Stewart Pecans

OFFER NO. 32.

\$23.95 Delivered. All Charges Paid.
30 Fruit Trees 12 Lawton Blackberries
4 Grafted Walnuts 12 Lucretia Dewberries
10 Citrus Trees 12 Phenomenal Berries
20 Grapes 6 Gooseberries
12 Cuthbert Raspberries 12 Currants

OFFER NO. 33.

\$13.65 Delivered. All Charges Paid.
40 Fruit Trees. 20 Grapes.

OFFER NO. 34.

\$18.15 Delivered. All Charges Paid.
40 Fruit Trees 2 Grafted Walnuts
5 Citrus Trees 20 Grapes

OFFER NO. 35.

\$27.10 Delivered. All Charges Paid.
40 Fruit Trees 12 Currants
10 Citrus Trees. 12 Cuthbert Raspberries
4 Grafted Walnuts 12 Lawton Blackberries
12 Grapes 12 Lucretia Dewberries
6 Gooseberries 12 Phenomenal Berries

OFFER NO. 36.

\$23.50 Delivered. All Charges Paid.
35 Fruit Trees 12 Lawton Blackberries
4 Grafted Walnuts 12 Lucretia Dewberries
5 Citrus Trees 12 Phenomenal Berries
12 Grapes 12 Cuthbert Raspberries
6 Gooseberries 2 Grafted Stewart Pecans
12 Currants

OFFER NO. 37.

\$15.90 Delivered. All Charges Paid.
50 Fruit Trees

OFFER NO. 38.

\$17.05 Delivered. All Charges Paid.
50 Fruit Trees 20 Grapes

OFFER NO. 39.

\$23.45 Delivered. All Charges Paid.
50 Fruit Trees 12 Lawton Blackberries
4 Citrus Trees 12 Lucretia Dewberries
12 Grapes 12 Phenomenal Berries
12 Currants 2 Grafted Walnuts
6 Gooseberries 12 Cuthbert Raspberries

OFFER NO. 40.

\$30.40 Delivered. All Charges Paid.
50 Fruit Trees 12 Currants
10 Citrus Trees 12 Lawton Blackberries
2 Grafted Walnuts 12 Lucretia Dewberries
20 Grapes 12 Phenomenal Berries
6 Gooseberries 12 Cuthbert Raspberries
2 Grafted Stewart Pecans

OFFER NO. 41.

\$24.60 Delivered. All Charges Paid.
80 Fruit Trees 20 Grapes

OFFER NO. 42.

\$28.05 Delivered. All Charges Paid.
80 Fruit Trees 4 Grafted Walnuts
2 Grafted Pecans

OFFER NO. 43.

\$45.35 Delivered. All Charges Paid.
80 Fruit Trees 20 Grapes
10 Citrus Trees 12 Cuthbert Raspberries
10 Grafted Walnuts 12 Lawton Blackberries
6 Gooseberries 12 Lucretia Dewberries
12 Currants 12 Phenomenal Berries
2 Grafted Stewart Pecans

OFFER NO. 44.

\$27.50 Delivered. All Charges Paid.
100 Fruit Trees 50 Grapes

OFFER NO. 45.

\$36.25 Delivered. All Charges Paid.
100 Fruit Trees 4 Grafted Walnuts
20 Grapes 1 Grafted Pecan
5 Citrus Trees

OFFER NO. 46.

\$55.80 Delivered. All Charges Paid.
100 Fruit Trees 12 Cuthbert Raspberries
20 Citrus Trees 12 Lawton Blackberries
6 Gooseberries 12 Lucretia Dewberries
20 Grapes 12 Phenomenal Berries
12 Currants 10 Grafted Walnuts
2 Grafted Stewart Pecans

OFFER NO. 47.

\$50.70 Delivered. All Charges Paid.
100 Fruit Trees 20 Lucretia Dewberries
10 Citrus Trees 10 Grafted Walnuts
10 Currants 20 Lawton Blackberries
50 Grapes 20 Phenomenal Berries
20 Raspberries 10 Gooseberries
2 Grafted Stewart Pecans

Prosperity Has Arrived

Every State in the Union Reports Every Industry Booming—Commercial Earnings and Bank Clearings Show Tremendous Increases.

BY B. C. FORBES

NEW YORK, December 1.—Business do boom.

Every State, every industry, is getting aboard the prosperity express.

All tracks have been cleared for it.

And commerce is unlikely to derail it.

To tamper politically with business is now akin to fingering a buzz-saw in motion.

The people have switched from academic "reforms" to prosperity.

They want work and good times, not amateur law-making and ball games.

The business man has ousted the muck-raking politicians from popular favor.

The coming of this change has been proclaimed repeatedly in this country.

It has arrived.

On Monday I enumerated twenty-five developments.

Yesterday brought another batch.

O O O

NOR is unusual activity confined to New York, although here national conditions are mirrored more distinctly, perhaps, than elsewhere.

Let me cite first a few illustrations from local news:

Exports from New York for the week ended November 20 reached \$65,413,544, contrasted with less than \$20,000,000 a year ago.

The Pennsylvania and Erie Railroads reported phenomenal October earnings. The month's figures for the whole country promise to break all records.

Bond sales on the New York Stock Exchange for the month ended totaled \$124,000,000, the largest of any November in seven years, and the best for any month in six years. Stock sales were 17,500,000 shares, the highest for any November since 1909.

The local treasury reported that its supply of pennies has been completely cleaned out. In two months 10,000,000 pennies have been paid out to New York banks.

Bank clearings in New York for November were \$11,320,000,000, against \$5,400,000,000 last year. For ten months the total \$93,200,000,000 is ahead of any recent year.

New York is almost daily exporting unprecedented quantities of sugar to England, France, Switzerland, Mexico, Uruguay, Bermuda, British West Indies, French West Indies, New Foundland, Panama and Malta.

Railroad presidents met here yesterday to devise steps to meet the acute congestion caused by abnormal traffic for export and the ships to carry it away. The embargo is to be widened.

Investment bankers announce ready absorption of new railroad offerings of securities.

O O O

FARMERS are prospering.

Mines are prospering.

Most industries are prospering.

Stores are prospering.

Hotels are prospering.

Financial and brokerage houses are prospering.

Shipping companies are prospering.

Labor is prospering.

Optimistic reports are received from all sections of the country.

These are interesting and inspiring:

Minneapolis reports 6,400,000 barrels of flour shipped in the last ninety days, a new record by 1,000,000 barrels.

Riches from mines and farms have made Arizona merchants great optimists.

"November business made a record," says the Secretary of the St. Louis Associated Retailers.

"The Detroit Chamber of Commerce's secretary declares:

"Practically all factories are rushed with work. Wages are higher than ever before."

Chicago reports reviving business and

financial conditions. November bank clearings were \$1,430,000,000, a total only once exceeded.

O O O

THE exposition has helped the Pacific Coast. Moreover, farmers are prospering as never before. Merchants report 30 per cent better business than last year.

Colorado is waxing rich from high prices for zinc, silver and other metals, while farmers are all buying automobiles.

From New Orleans come reports of twice as much business done by wholesale merchants as a year ago.

From Pittsburgh: "Every manufacturing establishment in Pittsburgh district is capable of putting in operation without an expenditure equal to the cost of new construction is now in use. The Pittsburgh foreign trade is unable to find a vacant factory for a prospective tenant."

From Duluth, Minn.: "The first steel making operations in Minnesota began at the Minnesota Steel Company."

The Christmas season finds Montana more prosperous than ever before in its history.

O O O

W. H. DONNER, president of the Cambria Steel Company: "I never saw such a steel market. Almost every plant is so oversupplied with orders as to make it difficult to fill requirements as buyers of steel would desire."

Thirty Toledo corporations have increased dividends \$1,411,495 over last year.

St. Paul's bank clearings broke all records yesterday.

Utah is prospering through the boom in metals, including silver.

Atlanta reports very free spending of money, with merchants laying in abnormal stocks of goods.

Texas has got a good price for cotton sold and has lots of credit to withhold supplies whenever considered advisable. Trade there, in the dumps last year, now called "excellent."

Kansas City Commercial Club's secretary has never seen "so much money spend or such a general atmosphere prosperity."

Says the president of the Raleigh Chamber of Commerce: "A great wave of prosperity is sweeping over our State. The war has taught the South economy and more money is available for Christmas shopping than in several years." Ohio steel mills are obliged to refuse lots of orders. Labor is scarce.

O O O

FROM the Central Northwest reports are all cheering. Farms, factories and mines all contribute to the revival activity.

"Retail merchants are overrun with business," records Richmond, Va.

Alabama does not yet talk of an actual boom, but finds things moving in the direction. Diversification of crops has helped. So have war orders.

"Practically all lines of industry here are showing prosperity," is the message from Nashville, Tenn.

Waco, Texas, held a "prosperity banquet," with tables spread in the street. Over 2,000 attended.

Southwest Virginia coal mines are rushed with orders following England embargo on coal shipments. Labor is extensively advertised for.

In Columbus, Ohio, "the demand for labor is greater than the supply, and factories, with few exceptions, are rushing," says the secretary of the commerce chamber.

Cleveland people have more money for Christmas use than in any year since 1906. Wages are the highest ever known.

Little Rock, Arkansas, banks report increase of 20 per cent in deposits during the year.



ague

One.

reunited G. sees a Bull at does T.

a in the manship trial of George

Page have

U. S. DEPARTMENT OF AGRICULTURE.

Official Business

Penalty for Private Use, \$300.25

FEB 25 7 PM

U. S. Department of Agriculture,

Washington, D. C.

BUREAU OF PLANT INDUSTRY,
Horticultural and Pomological Investigations.

8-2802

Important to Fruit Growers

U. S. Department of Agriculture

Washington

100-2-1000